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NOVEMBER 15, 1924

The 1925 National Match Load

By Kendrick Scofield

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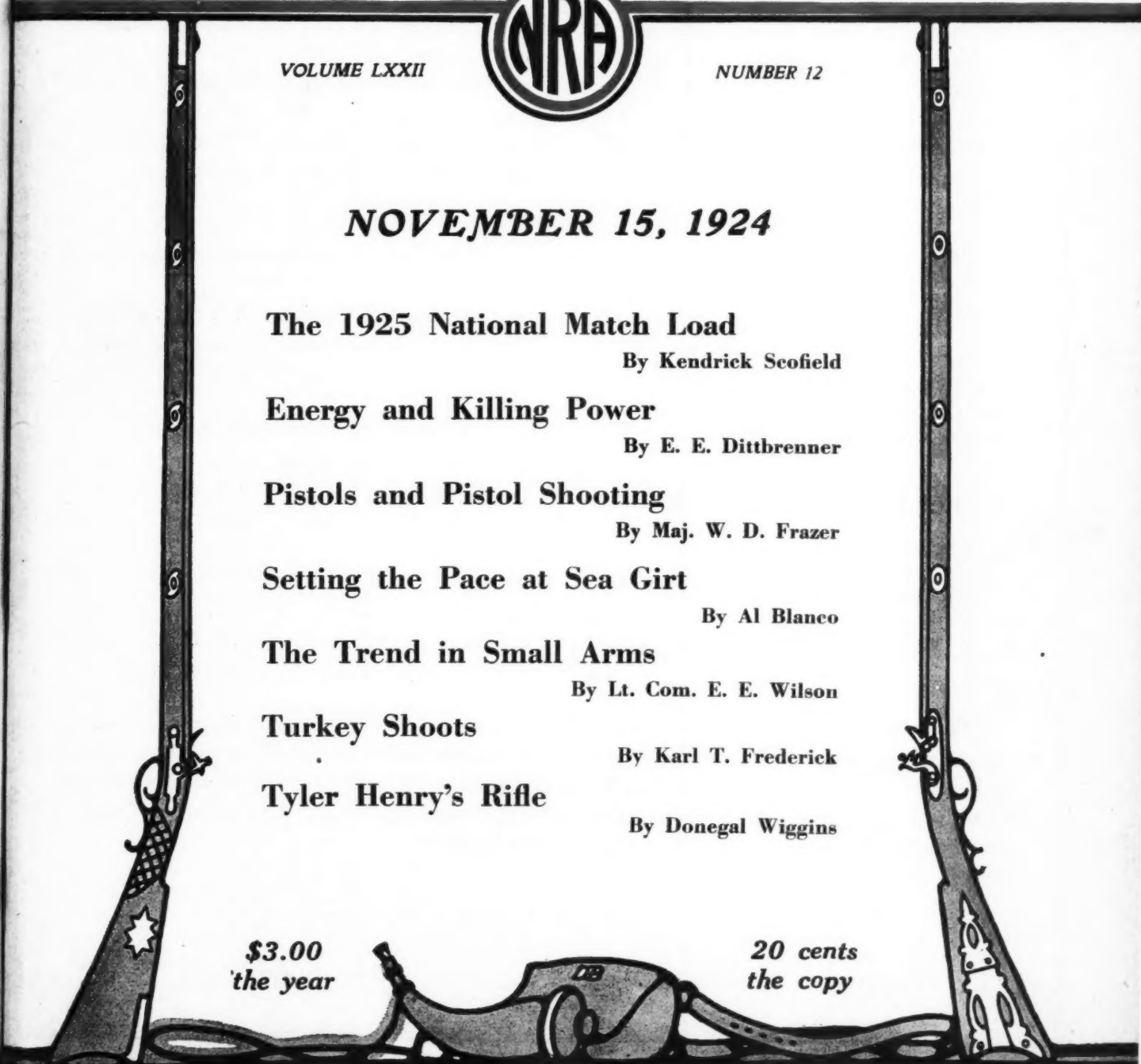
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Another Big List of Wins for US Ammunition



Shooters using US .22 N.R.A. long rifle cartridges not only won a large share of the prizes in the small bore rifle matches at Camp Perry, but in the pistol and revolver competitions US ammunition practically swept the boards. In nearly every pistol and revolver match where other than Government ammunition was used, first place as well as a majority of the other prize positions, as shown below, went to marksmen who shot either US .22 N. R. A.'s or US cartridges of larger caliber.

Six of First Seven Places

.22 CALIBER SLOW FIRE RE-ENTRY MATCH

1st	Lieut. W. J. Whaling,	U. S. M. C.	472
2nd	Gy. Sgt. J. M. Thomas,	U. S. M. C.	470
4th	Gy. Sgt. H. M. Bailey,	U. S. M. C.	464
5th	Sgt. E. J. Neitke,	U. S. M. C.	463
6th	Corp. Warner Brown,	U. S. T. C.	457
7th	M. A. Zovadsky		445

First Place

.38 OR LARGER CALIBER SLOW FIRE MATCH

Won by	Lieut. S. R. Hinds,	U. S. Inf.	176
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.22 CALIBER TEAM MATCH

Won by	U. S. Marine Corps	881
The U. S. Infantry Team, which won third place in this match, also used US .22 N. R. A.'s.		

First Three Places

.38 OR LARGER CALIBER SLOW FIRE RE-ENTRY MATCH

1st	Gy. Sgt. J. M. Thomas,	U. S. M. C.	455
2nd	Capt. Herman Thomas,	U. S. R. C.	454
3rd	Sgt. Bernard Betke,	U. S. M. C.	452

.22 CALIBER SLOW FIRE MATCH

1st	Dr. J. L. Basty, Boston		187
2nd	Lieut. S. R. Hinds,	U. S. Inf.	186
3rd	Lieut. W. J. Whaling,	U. S. M. C.	182

FREE PISTOL MATCH

1st	Lieut. S. R. Hinds,	U. S. Inf.	98
2nd	Lieut. W. J. Whaling,	U. S. M. C.	95
3rd	Sgt. Nolan Tillman,	U. S. M. C.	94

The national matches at Camp Perry were one of the two major shooting events of the year. The other big event was the international and Olympic matches in France. In both cases, shooters using US ammunition won many of the honors. Could anyone ask for a more convincing demonstration of the accuracy and uniformity of cartridges bearing the US trademark?

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WASHINGTON, D. C., NOVEMBER 15, 1924

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The 1925 National Match Load

By Kendrick Scofield

POWDER of nitrocellulose type and a 9-degree boat tail gilding metal bullet, differing slightly from previously accepted design, proved to be the winning combination in the 1925 National Match Test.

The shooting, done at the Aberdeen Proving Ground, gave this ammunition—known as Lot. 1—a mean radius of 5.710 inches at 1,000 yards and 2.303 inches at 600 yards.

Lot No. 2—the same bullet with nitroglycerin powder—gave a 1,000-yard mean radius of 6.887 inches and a 600-yard mean radius 2.592 inches.

Lot No. 3, last year's winner, gave a mean radius at 1,000 yards of 7.302 and at 600 yards, 3.843 inches.

Reference to these figures demonstrate clearly that the winning powder consistently outshot its competitors at both ranges. The figure of merit, an arbitrary calculation which reduces the average mean radii of the two ranges to a common figure, and upon which the winner of the test is decided did not alter the relative standing of the three lots.

The 1925 National Match Ammunition Test, aside from demonstrating the high degree of accuracy that the competitors in next year's matches may confidently expect from the ball cartridges they will use, provided an unusually creditable demonstration of efficient range operation. Having laid their guns on the targets the night before, which eliminated any waste of time in sighting in, the Frankford Arsenal crew began the 1,000-yard firing at 8 o'clock on November 6, under the direction of Lieut. Dale Rothrock in the shooting house and Lieut. G. L. Wotkins in the pit. By 10:30 o'clock the long-range groups were all in; by noon they had been measured and recorded. By 1:15, the 600-yard shooting was done and a temporary range with roller targets was set up for the test firing of the pistol ammunition. This in turn was run off in record time and complete data on the test, covering all lots, both rifle and pistol, was in the hands of the board members by 3 o'clock.

When the members of the board gathered at Aberdeen, following the Washington meeting at which the conditions to govern this year's test was laid down, it was found that Frankford Arsenal would submit two new lots of ammunition to be fired against the best average lot of the 1924 National Match ammunition.

The specifications of Lot No. 1 as announced called for the Frankford Arsenal case, rifle anneal, the Frankford Arsenal .30 caliber primer, No. 70 mixture, and a 172-grain gilding metal 9-degree boat tail bullet, with 53.2 grains of DuPont Army pow-

der, Lot 1489. Instrumental Velocity at 78 feet, 2,716.4 and mean pressure 49,640 pounds.

The specifications of Lot No. 2, called for the same case, bullet and primer, with 48.2 grains of Hercules Army Lot. 1488. Instrumental Velocity at 78 feet, 2,694; mean pressure 44,020.

Lot No. 3, as mentioned before, was the 1924 National Match cartridge, carrying a 172-grain, 9-degree boat tail, and loaded with 47 grains of HiVel, with an instrumental velocity of 2,701 and a pressure of 49,000 pounds.

Peering beneath the "Army Lot" aliases, it was found that "duPont 1489" was none other than our old friend "1147" and that "Hercules 1488" was another old friend, HiVel. Therefore there was nothing new about the powders and the test promised to be nothing more exciting than a race between those two ancient rivals in the powder field, especially since cases, primers and bullets in these two lots were identical.

But it developed that there had been a slight, though not intentional change in bullet used this year. Some months ago, Frankford Arsenal discovered that the manufacturing process which was in use was not producing the undeviating uniformity in bullets that was desired, and for that reason a new machine was introduced. Bullets turned out by this machine without any purposeful alterations of the bullet design, proved to differ slightly from those produced by the old type of machine. Among other minor differences, this year's bullet is three one-hundredths of an inch shorter than last year's although the weight is the same as is the degree of taper in the boat tail. When fired at Frankford in preliminary tests, these new bullets showed an increased accuracy over last year's product. It was therefore adopted as a new type and loaded in to the 1925 match ball cartridges.

Incidentally it may be mentioned here—although this feature is still in its experimental stage, and will not be incorporated in this year's match ammunition, that Frankford Arsenal is working to perfect a light tin wash, put on by a boiling and not a plating process, to use on gilding metal bullets to prevent corrosion. This must not in any way be confused with the "tin can" bullet which caused so much trouble in 1921. The wash in this new process is so thin as to be almost immeasurable and preliminary tests indicate that it in no way tends to solder the bullet in the case as did the tin-plated bullet.

Another point of interest which may be mentioned here before taking up the details of the test, is that the winning powder this

year exists in sufficient bulk to permit the loading of all the National Match cartridges from identically the same powder as the try-out lot. At the October meeting of the board the desirability of this was stressed, but powder manufacturers were not required to submit samples from bulk rather than from small laboratory lots, because such a requirement would have tended to limit the development of new powders. It has so happened however that Frankford loaded the winning lot this year from bulk powder already on hand. This circumstance has never occurred before.

Those who gathered to witness the test, including the members of the Ammunition Board, and representatives from most of the loading companies, after seeing the specifications realized that the test would constitute a double race: HiVel against 1147 in the two new lots, and the new bullet against the old bullet which was loaded into the 1924 ammunition, known as Lot 3.

The results of the test vindicated the judgment of the Arsenal as to the relative accuracy of the bullet produced by the new manufacturing process. Both with duPont 1147 and HiVel, the new bullet gave greater accuracy than last year's, based both on mean radius, extreme horizontals and figures of merit. This year's HiVel—Lot No. 2—however did not equal last year's performance of the 1924 lot on extreme vertical measurement at 1,000 yds.

Comparing the figures of the winning 1925 ammunition with the figures for 1924 shows that the 1924 figures were slightly smaller, the 1924 mean radii at 1,000 having been 5.685 against 5.710 for the 1925 and the 1924 mean radii at 600 yards having been 2.260 against 2.303. Taking into consideration the fact that the 1924 ammunition shot this year fell considerably below its performance last year, this cannot be considered of any particular importance having been due either to the difference in weather conditions or some other extraneous cause.

With the wind dead in the muzzles of the Mann barrels, on a chill thick morning, which later changed so that there was a good dull shooting light, the test got under way. All lots were fired simultaneously, being rotated through the three guns every ten targets. The conditions of the test called for 45 ten-shot targets at 1,000 yards and 15 ten-shot targets at 600 yards.

So far as the ultimate results of the test were concerned, the first ten targets, in the light of what followed, proved to have told the story, and especially at the long range. Allowing for the slight settling down which usually begins after the first three or four targets are fired, the mean radii recorded with the first hundred shots were extraordinarily close to the average mean radii recorded for the 300 shots at this range. At this point in the test, the nitrocellulose load recorded an average mean radius of 5.855 inches the final figure for the 30 targets for this lot was 5.710 a little more than a one-tenth inch difference. The nitroglycerin load at this point recorded a mean radius of 6.786, which was 0.931 of an inch greater than Lot No. 1, yet within one-

tenth of an inch of the final average radius of this lot for the thirty targets, which was 6.887. The final figures for both lots showed a difference in favor of the nitrocellulose load of 1.177 inches. Lot. No. 3, the 1924 Match load, for the first ten targets recorded an average mean radius of 7.703 but showed a considerable betterment for the whole thirty targets, the finals being 7.302.

During the shooting of the first ten targets, it was evident that something had happened to the verticals in the nitroglycerin lot. While the horizontals for this lot showed only two inches larger than those of the nitrocellulose, there was a divergence of nearly six inches in the verticals, with a consequent discrepancy of about the same amount in the extreme spread.

The second series of ten targets showed Lot. 1 still in the lead with an average of

FIGURES OF MERIT

National Match Ammunition, Lot No. 1—172-gr. boat tail gilding metal bullet and 53.2 grains duPont 1147 powder—Winner of the test with a figure of merit of 4.574 inches.

National Match Ammunition, Lot No. 2—172-gr. boat tail, gilding metal bullet and 48.2 grs. HiVel—Second in the test with a figure of merit of 5.441 inches.

National Match Ammunition, Lot No. 3—A selection representing the average accuracy of the National Match 1924 ammunition—Third in the test with a figure of merit of 6.196 inches.

5.754 which was a materially better showing than was made by the first series of ten. Lot No. 2 held second place with a radius average of 6.603, a slight improvement over the figures for the first series of ten, this being traceable to better verticals. Lot No. 3 showed a decrease in horizontals, but a more than compensating increase in verticals and continued in third place on a mean radius of 7.115, which however was a better showing than that made with the first series of ten.

The final series of ten targets at 1,000 yards did not change the lineup, although it slightly varied the performance of each lot of ammunition. Lot No. 1 consistently held its verticals around 17 inches and its horizontals around 12 inches with a mean radius average of 5.521. Lot. No. 2, however, recorded its largest verticals in this series, exceeding an average of 23 inches, but with horizontals comparing favorably with those of Lot No. 1, and was given an average mean radius of 7.271. Lot No. 3 registered the lowest of its verticals at this point, averaging around 19 inches, but with an increase in horizontals, and an average mean radius of 7.302.

A summary of the 1,000-yard shooting for the three lots gave these figures:

Lot No. 1—Nitrocellulose Powder: Average Extreme Verticals, 17.076 inches; Average Extreme Horizontals, 11.829 inches; Average

Mean Radius, 5.710 inches, and Average Extreme Spread, 18.268 inches. This, with well centered groups, it can be plainly seen will shoot well within the V-ring of the long range target. These figures show a better extreme vertical than did last year's winning lot, with 17.315 inches.

Lot No. 2—Nitroglycerin Powder: Average Extreme Verticals 21.242 inches; Average Extreme Horizontals, 14.097; Average Mean Radius, 6.887 and Average Extreme Spread, 23.208 inches.

Lot No. 3—The 1924 National Match Type Average Extreme Verticals, 19.512; Average Extreme Horizontals, 16.420; Average Mean Radius, 7.302 and average Extreme Spread, 22.500.

Comparing the horizontals of Lots No. 1 and No. 2 loaded with the new bullet with those of Lot No. 3, loaded with last year's bullet, which gives a measure of the wind riding qualities of the two types of projectile, shows conclusively that the new bullet was much less affected in left to right dispersion than the older form.

At the 600-yard range all lots of ammunition ran true to the form that had been set at the long range. At times the shooting resulted in some remarkably small groups, even better than the average of the winning lot in which the mean radius recorded was 2.303 inches, with an extreme vertical of 6.171; an extreme horizontal of 5.861 and an extreme spread of 7.119.

Taking the 600-yard shooting in groups of five targets each, the first relay resulted in Lot No. 1 forging into the lead on an average mean radius of 2.116 inches; with Lot No. 2 following on a radius average of 2.346 and Lot No. 3 in third place with a radius average of 3.55 inches. As had been the case in the long-range shooting, Lots 1 and 2 ran a close race in the matter of verticals, the leader averaging 6.002 and its rival 6.358.

The second series of five targets gave Lot No. 1 decidedly the better break both in radius and verticals, the average mean being 2.346 inches against 2.71 and the verticals being 5.874 against 6.436. Looking over the detailed group measurements for these targets discloses four groups for Lot 1 with mean radii between 2.27 and 2.37 inches and for Lot 2, four groups between 2.74 and 3.20, with one group showing a radius of 1.78 to bring down the average figure.

By this time it was apparent that Lot No. 3—last year's National Match lot—would make little, if any better showing than it had at 1,000 yards, having registered greater than nine-inch verticals for the first five targets and greater than eight inches for the second series of five.

For the final five targets at 600 yards, all lots showed slightly increased groups. The nitrocellulose load, as usual, lead with 2.43 inches, the nitroglycerin lot following with 2.594 and Lot No. 3 last with 4.074.

While the majority of these groups made with Lots 1 and 2 were creditable there were some which were (Continued on Page 12)

"Energy and Killing Power"

An Answer to Chauncey Thomas

By E. E. Dittbrenner

IF a man loads his pipe with some soothing sedative he may very well indulge in pipe dreams, but why transcribe them into black and white? Don't they lose all their charm that way? And anyway—foot pounds and horsepower—what a subject for a pipe dream! Being concerned with the design of things which require their computation every day, they have become old friends with definite and recognizable characteristics. And seem such prosaic and everyday things to dream about, too. And bombshells, forsooth! I'll confess I've never conspired against law and order (with bombshells) but I have, from experience, determined a safe and only rule to follow in exploding them just where and when you want them to explode. (For bombshells see Page 15, AMERICAN RIFLEMAN, September 1, 1924,—alias "Energy and Killing Power.") While this experience dates back to the memorable years of '17-'18, it still holds true. Do it this way: Light the fuse, preferably with a fuse lighter and with a steady hand, and hold carefully in the throwing hand until the fuse is just short enough to burn to the explosive during its passage to the desired place of explosion, then throw it. In this way there is no time for the intended victim to pick it up and throw it back at you, nor is there time for him to flee. In other words you've got to know your stuff or you'll fizzle on the job!

Seriously, somebody wants to know "What does ft. lbs. mean?" Dear sir: You just multiply any number of feet by any number of pounds, and the resulting product is "ft. lbs." It is a unit of work, likewise a measurement of work which a body possessed of a number of foot pounds of energy is capable of doing. In the first case it represents a product of a force by the distance through which it acts,—the force in pounds and the distance in feet. In the second case it is a measure of energy (which is a capacity for doing work) expressed in terms which indicate the amount of work which has been done to attain that energy and which that body can impart to any medium capable of absorbing it. In the case of work, time does not enter into the matter at all. In the case of energy, time is (in ballistics—horsepower or real) usually the predominant factor in determining the ft. lbs. of energy. Energy of moving bodies is ALWAYS a function of time, Mr. Thomas to the contrary notwithstanding. Velocity is directly a function of time, so where do you get that stuff that we do not regard time in our ballistics? Kinetic energy is a product of the velocity squared by one-half the mass,—in this world, anyway.

It is true that in our scientific thinking we use space, time and mass. Plato to the contrary, they are not mental concepts, as you

will find if you travel from one place to another (it takes the earth a year of time to travel the length of its orbit, you know), or attempt to move a paving block with an improperly shod foot. Even try sitting on a tack. But in the calculation of foot pounds and horsepower we use a few more things not mentioned by Mr. Thomas in his September 1st article. For instance: Acceleration, which is a rate of change of velocity, and force, which is a product of mass and acceleration and without which there could be no change in motion, or motion of anything which is now at rest. Only in "alleged scientific thinking" would they disregard these elements of work and power (better find that September 1st issue now).

Now, if you were to say that a gun develops or expends, say, ten horsepower, what would you mean? In one sense you might refer to the pea shooter which annoys so many kindergarten teachers, and in another you would infer that it would take a battleship to carry it around. And how would you know which was which? You should know that horsepower is simply a unit of power, and power is a Rate at which a force acts in doing work—it doesn't tell you how much work the projectile is capable of doing, or how much energy it will be possessed of unless you tell us how long it acts, or how long before it acts. To be at all intelligible it would introduce a number of conventions which would be confusing and misleading. Now why such an outlandish unit of energy, which isn't a unit of energy but a rate at which energy is being used? Why not use the basic units of energy, which are feet and pounds, and do as we are doing now?

Just why is horsepower a bad proposition to handle when it comes to measuring the energy of a projectile? Let's see! As before stated, horsepower is a rate of doing work,—33,000 foot pounds of it in one minute or 550 foot pounds of it in one second, and it is only a measure of energy if we take into account the length of time the horsepower is applied. It involves three things: Force, distance and time. Mathematically stated:

$$\text{Horsepower} = \frac{\text{force in lbs.} \times \text{distance in ft. per minute}}{33,000 \text{ foot pounds}}$$

Now here is the rub—What is the force we must use in order to determine the horsepower applied to ballistics? And are we going to figure the horsepower expended on the bullet to produce the muzzle velocity, or are we going to figure the horsepower expended by the bullet after leaving the gun? By no stretch of imagination are they the same. For instance, in the Springfield the powder gases work on the bullet at the average rate of about 1,500 horsepower, but only

for a very small fraction of time. I say average because the rate of working is never the same at any stage of the bullet in the barrel or anywhere else. The average force is about 1,200 pounds (about 15,000 pounds per square inch on the base of the bullet). The maximum force is much greater and the minimum much smaller. Both of these items will vary with the burning of the powder and with different powders and different lots of the same powder. Since the average force bears no relation in time or quantity to the maximum and minimum force (or pressure) for all types of powders, this isn't even of much use in the design of rifle barrels or breech mechanisms. Now what does this tell us? What poor animal of the chase is going to roll his eyes in peaceful death at that? Of course it's painless, but what of that? But let's figure the horsepower. To do this we must determine the force acting on the bullet—in pounds. Now what is this force and how do we find it? Ah, but here is the fly in the ointment! *We have to find that force either from the velocity of recoil or from the muzzle velocity of the bullet!* Now Mr. Thomas implies that we know nothing about recoil or velocity. If his implication is true, then we can't determine our ballistics in horsepower—and we can't determine them in foot pounds either. I trust you appreciate the situation! As a matter of fact, we can measure muzzle velocity and recoil velocity and any reasonable person with a grasp of fundamentals in physics will admit it. Say we can, then, determine the muzzle velocity. From the weight of the bullet we can determine its mass—which is not weight, you understand. Mass is what would be left if we took away the acceleration of gravity. Now here we have all the information necessary to figure the amount of work expended on the bullet or which the bullet can do, but this doesn't tell us our horsepower. Having our velocity, we must now determine our acceleration, and whether you figure horsepower expended on the bullet in the barrel or by the bullet in its flight will determine what this is. In the first case it averages about 1,800,000 feet per second per second (note there are two "per seconds") and in the latter case only about seven to eight hundred feet per second per second for the first part of its flight. It is constantly changing so you can't get accurate results short of a small volume for each cartridge. Your desired force is a product of this mass and acceleration. It is not the maximum or average breech pressure in one case nor the resisting force of the animal tissue in the other. It is the only way it can be determined. It is the way they determine most things in this world—by indirect measurement. If you dispute the validity of (Continued on Page 12)

Pistols and Pistol Shooting

By Major W. D. Frazer

Part II

TO MASTER the art of pistol shooting, one must possess certain natural qualifications and the energy, will power and perseverance to develop a skill and technique which can be acquired only through a vast amount of training of mind, muscles and nerves. However, to master an art is one thing and to achieve success at it is another, and while the most of us do not possess all the inherent qualities necessary to become preeminent, we can acquire a degree of expertness which is well above average and sufficient in itself to amply repay us for all our efforts.

recreation or professional efficiency as our chief objective.

The foregoing paragraphs are written not to discourage anyone, but rather to emphasize an accomplishment which is too often included in the same category with other forms of shooting all of which, as far as technique is concerned, are much easier to excel in than pistol shooting, though we have sometimes been taught to believe the contrary.

Rifle shooting with both small bore and Service rifles is based on the same fundamental principles as is pistol shooting, but

when problems of wind, light, mirage, a atmosphere density and temperature enter into this form of shooting and have to be solved in long range firing, then the game takes on a scientific aspect.

Shotgun target shooting at clay pigeons by a real expert is undoubtedly the best exhibition of a highly developed mechanical form of shooting,

showing a wonderful coordination of mind and muscles in which the element of time is in-

with a minimum of movement during the time sights are being aligned and trigger squeezed calls for a highly trained set of muscles and nerves and incidentally a power of concentration and self-control not required in so marked a degree in other forms of shooting.

Among riflemen we sometimes find a tendency to belittle the pistol game, as something "unworthy of their steel." Apropos of this there is a tale worth telling. At a recent training camp of a certain Service team where the best rifle and pistol shot of that branch were assembled for a final tryout for the selection of National Match teams, it was found that there were several "Distinguished Marksmen" present who were not eligible to fire on the National Match rifle teams of that year because of certain recently changed rules. These men decided they would spend the tryout period training for the pistol team and thereby gain for themselves fresh glory and laurels in the form of a certain much coveted gold medal known as the "Distinguished Pistol Shot Badge." On first joining the pistol squad their attitude was one of mild interest in their work. Their desire for instruction was not evident and they gave the coach the idea that they felt perfectly at home and able to carry on successfully without any attention on his part. Within a few days these same men displayed a very different demeanor, which was one of pained surprise varied by violent exhibitions of disgust and temper, resulting in some cases in throwing of pistols on the ground because they could not be made to perform as satisfactorily as the owner's rifles had been accustomed to do.

Finally realizing that self-control was one of the main essentials to success, the group settled down to practice with a great deal more respect for the game than they had



THE 1924 AMERICAN OLYMPIC TEAM, CHALONS, FRANCE

This team won first place for the United States. From left to right they are: 1st Lt. J. Whaling, USMC; 1st Lt. E. Andino, Inf.; Gy. Sgt. H. M. Bailey, USMC; Gy. Sgt. B. G. Betke, USMC; and Maj. W. D. Frazer, CAC, the author of this article. Sergeant Bailey won the Individual Olympic Championship, with a run of 54 consecutive hits on the French silhouette target. Sweden took second place and Finland third.

If we take up pistol shooting strictly for pleasure and recreation we will probably approach it in a different way than if we had as our object the winning of a national championship. Again if we study the art with the purpose of mastering the theory and practice as part of our professional education, to be used later in more efficient instruction of men, we are apt then to solve the problem as we would any other that is incident to our profession and a necessary part of our technical training.

If we learn to shoot a pistol with reasonable assurance or knowledge that our life may depend on our ability to draw quickly and fire rapidly and accurately in a time of great personal danger, this responsibility will cause us to put forth a maximum effort to overcome the difficulties incident to learning the game and we will consider such efforts and the time devoted thereto as well spent. We will also, considering our purpose and viewpoint, approach the subject from an entirely different angle than we would were we considering

showing a wonderful coordination of mind and muscles in which the element of time is in-



THE "TELL" .22 CALIBER TARGET PISTOL

Length of barrel 14½ inches. Double set triggers. Special individual grip. Changeable front sights. Adjustable rear sight. Falling block action.

principles of aiming, trigger squeeze and calling the shot are very much the same, while holding, or that ability to keep a pistol on a target

previously shown. However, long habitual use of the rifle aided by two arms, a rifle sling, mother earth and various other accessories had

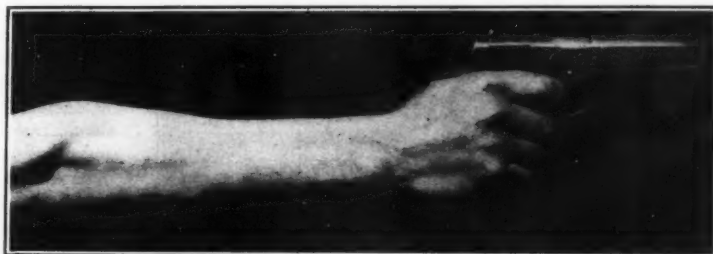
made them so dependent on these aids that when they were required to "stand up on their hind legs and shoot like a man" they found themselves much like small boats in a heavy sea. Incidentally, none of these "Distinguished Marksmen" made the pistol team. On the other hand, there are many cases on record of men, who, having first learned the pistol shooting game have been able with comparatively little practice and rifle shooting experience to make most excellent rifle shots. Pistol shooting will help one in rifle shooting, especially in the off-hand style, but the converse is not true except insofar as the basic principles are concerned.

When the novice is willing to accept as a fact the statement that it is harder to excel with the pistol than with rifle or shotgun, then, and only then, is he in the proper frame of mind to begin work with the handgun. His acceptance of this statement will better prepare him to meet and overcome difficulties as they arise and furthermore he will be less prone to discouragement.

The most desirable assets any young man can possess who wishes to acquire, naturally and easily, the skill and technique so necessary to pistol shooting are, first and foremost, a healthy body and mind; further specific qualities to be desired are an athletic physique, phlegmatic temperament, imperturbable disposition, good temperate habits and normal eyesight. A person possessing all the traits here enumerated would be an ideal subject to instruct, train and develop in to a pistol expert. Most of us possess few of these attributes and still this lack should not be a matter for discouragement as shooting history is full of examples of excellent pistol shots who were handicapped by a minimum of natural attributes, but who, through a devotion to the game and an indefatigable perseverance, have so distinguished themselves as to almost disprove the rule by the number of brilliant exceptions. A man of nervous temperament frequently possesses certain distinctly advantageous traits which accompany such a temperament chiefly a tendency to react more rapidly in emergencies. A keen quick acting brain often produces a greater accuracy of technique than is forthcoming in a more phlegmatic and unimaginative make-up, with the result that frequently we find such a man shooting marvelous scores. If this occurs, as has been known to happen, on the occasion of an important competition, the record so established may stand for years.

On the other hand, such an individual will probably have frequent decidedly off days when it seems to him that there is no depth to which he cannot sink—in other words, no score too low for him to make.

The man possessing the even temper and tranquil, unexcitable mind may never shoot as brilliantly as the impetuous, high-strung shooter when in top form, but on the other hand he can always be relied upon to shoot a good score and is ideal material for a team. He will usually produce a good score in a pinch when an anchor man is most needed.



The correct way to grip and hold the Service automatic. Note position of thumb, trigger finger, arm and wrist



HINTS AND SUGGESTIONS TO BEGINNERS

Regardless of his ultimate object in learning to shoot a pistol accurately and skillfully, the beginner should take up the game much as he would golf, tennis, swimming or any other interesting sport. He should get all the fun



Left: The wrong way to grip the Service automatic. Pistol not in prolongation of the arm.

Right: The correct way to grip the Service automatic.

out of it he can. Knowing that anticipation frequently provides as much pleasure as participation, he should go slowly until he is thoroughly interested in his subject. Let him discuss the game with any friendly pistol enthusiast, read available books on the subject, obtain those sporting magazines that contain articles on the subject. Inspect the catalogs of reputable pistol manufacturers. He might even examine carefully the different pistols in

the nearest large sporting goods store. In other words, let him work himself into the game before taking up the practice. No one should buy his equipment until he feels reasonably sure he knows what he wants. The initial cost may be high, depending on individual taste, but this is so in any worth while game—and it never pays to buy cheap equipment.

Like selecting your first automobile, the purchase of a suitable pistol is difficult unless you know just what you want and the purpose for which you want it. Instead of deciding on an open or closed car, or between a four, six, eight or twelve-cylinder machine you must instead decide whether you intend to do most of your shooting on an indoor or outdoor range, and whether you want a .22, .38 or .45-caliber weapon or one of the several "in-between" calibers.

At this point it is well to consider the various classes of pistol shooting practiced today, as the kind one prefers to follow has an important bearing on the proper equipment necessary to insure most advantageous progress.

Pistol shooting can be classified generally under three heads:

1. Military shooting, including slow, rapid and quick fire at stationary bull's-eye and disappearing silhouette targets, with military revolvers or automatic pistols.

2. "Free pistol" shooting or deliberate slow fire practice at either the International Target or the Standard American Target, time per shot or rate of fire unlimited. Specially designed single shot target pistols, with long barrels, adjustable target sights, special grips, light triggers including set triggers are used for this style of work. In this country this form of shooting has been confined to target pistols and revolvers with barrels not exceeding ten inches in length, to a rate of fire of one minute per shot and a trigger pull not less than two pounds, the target used is the Standard American Target.

3. Snap shooting at moving targets such as objects thrown in the air, floating on the water or rolling along the ground. This may include practice in quick drawing of a pistol from holster or pocket, or the miscellaneous methods of shooting for fun at all kinds of targets including the ever popular tin can.

To a member of the military Service it can be assumed that in addition to a desire to possess a gun that gives a maximum amount of pleasure to shoot, one wishes it to be the means of improving his shooting with the Service pistol with which he is normally armed. Following this line of reasoning and appreciating the high cost of ammunition one should select a revolver or automatic pistol of small caliber, with which to shoot for pleasure and instruction. Practice with this

arm will greatly aid in learning to use a weapon of larger caliber, arguments to the contrary notwithstanding.

Perhaps due to the fact that the automatic pistol is the latest development in hand guns and that a large percentage of good pistol shots both in and out of the Service learned to use the revolver first, this weapon is much preferred by them to the automatic because of its advantages over the Service pistol in greater accuracy, better grip and balance, simplicity and safety. However, the automatic has the advantage of a greater number of shots, greater rapidity of fire and permits the execution of more rapid fire with greater ease to the shooter. The recoil being partially absorbed in the operation of the automatic mechanism, there is less punishing effect on the shooter's hand in the heavier calibers when firing an automatic pistol than would result from using a revolver of similar caliber and load.

There is no sport in which equipment plays a more important role than in pistol shooting and one's pleasure and success will be in proportion to the class of weapon one uses. Cheap, inaccurate pistols with their crude, unadjustable sights, and generally poor design and workmanship are a source of constant annoyance and resulting discouragement in progress.

There are not many good American target pistols of small calibers to select from so that a person desiring to use a .22-caliber weapon either pistol or revolver is necessarily limited to those of a few reputable firms. The relative merits of the different makes have long been the subject of considerable controversy among the shooting fraternity and no one can state definitely that such and such weapons are the best because of the variance in taste of the individual shooter and because of the fact that each model usually has certain desirable features. There is no ideal weapon for everyone but one must select the one which suits him best considering his personal equation. The stock grips on most weapons are designed to fit the average hand. The effect of weight and balance of different pistols depends on the physical development of the man using the gun. For example, a heavy Service pistol may soon tire the small man of slender physique, while the beautifully proportioned and balanced .22-caliber S. & W. target revolver may seem to such person the ideal arm.

Based entirely on personal experience in the use of many makes and calibers of weapons, the writer unhesitatingly recommends certain favorite arms as among the best for the purpose of the beginner. For a .22-caliber target revolver, there is none better than the S. & W. .22-32 H. F. target revolver, sometimes known as the Bekheart model. This is an ideal weapon for target work and recreation in the open. The Colt .22-caliber target revolver would also be suitable. With either of these weapons, slow, timed or rapid fire can be successfully practiced.

To the Service man for use in connection with the .45-caliber Service pistol, the Colt .22-caliber automatic target pistol is the best

weapon of its kind on the market today and has proved its worth for several years. Its great accuracy and perfect functioning, with reliable ammunition, combined with simplicity of mechanism and nice grip and balance make it the ideal weapon for rapid fire. Having a splendid barrel and long sight radius it is capable of doing most accurate work in the hands of a good shot. The winning American Olympic pistol team used this weapon ex-



A natural, comfortable, well balanced shooting position. Note left shoulder and arm at ease. Head erect and turned well to the right. Both eyes open. Right arm fully extended without stiffness. Note position of feet to prevent body sway. Body erect with weight equally distributed on both feet. Right shoulder slightly raised.

clusively in the Olympic rapid fire matches of this year. The new Reising .22-caliber automatic sporting pistol has several very good features and promises when perfected to become a suitable pistol for target shooting.

For the man who desires to take up "free pistol shooting" with the idea of specializing in deliberate slow fire, a single shot target pistol is absolutely essential if he ever expects to rank among the leaders in this style of shooting. The weapon generally used for this work in the country by the majority of experts is the S. & W. .22-caliber single shot target pistol with ten-inch barrel. However, there is no American pistol on the market that can compete successfully with the highly perfected target weapons of Europe, which incidentally cost no more than our best American pistols. The failure of our International Pistol Teams to successfully compete shoulder to shoulder with the best European teams in this one style of shooting clearly demonstrates that we lack something other than good shots, and a careful analysis of the methods and equipment of these foreign teams indicate that it is only because of their superior equipment and their long experience in its use that they are able to outshoot us repeatedly. The wonderfully balanced long barreled pistols, with great sight radius, smooth delicate non-jarring lock

action, set triggers and carefully made individual grips give a decided advantage to the man who has learned to use them expertly. It is not believed advisable for a beginner to attempt to shoot with set trigger until he has thoroughly learned trigger squeeze with a heavier trigger pull. For men interested in .38-caliber shooting, there are several excellent target revolvers on the market.

It is not possible in an article of this length to cover in detail methods of instruction. The most that can be done is to offer suggestions that experience has taught to be of value.

Members of the Service learning the game should carefully study "Pistol Marksmanship" and other books on the subject, then carefully observe the form and methods followed by our best pistol shots. After analyzing the different styles, one should be adopted which fits the individual physique of the beginner and there after that form should be followed without material deviation until it seems like second nature to assume it. The important thing to study is primarily, shooting form, or in other words, the shooting position. Unless one takes a steady, comfortable, well balanced position he unnecessarily handicaps himself by putting more muscles under strain than are requisite for the purpose. Extreme, unnatural or grandstand poses should be strictly avoided. Nervousness and the consequent unsteadiness always result from strained and fatigued muscles. One finds considerable variation in form among pistol shots, but a careful study of that followed by the best shots will soon indicate that in the main they observe certain principles. Again, it must be remembered that for a certain kind of shooting with a certain weapon one position might be better than another in a few details. For indoor shooting where the wind problem is absent and where one uses only a pistol of small caliber with little or no recoil and fires only slow fire it might be practicable for a person to keep his feet close together and even face directly toward the target and still be well balanced and able to shoot good scores. But should a person of slender frame attempt to use this position for rapid fire with the Service pistol out of doors with even a ten-mile breeze blowing he would find himself much handicapped due to his unstable position and the heavy recoil of the gun. It is therefore better to adopt a position suitable for any style of shooting and based on sound fundamental principles.

The position and distance apart of the feet and the equal distribution of the body weight on them is all-important and the deciding factors in maintaining equilibrium with a minimum expenditure of energy. A good position is one in which the body faces almost at right angles to the line of fire. For a man of average height the distance between the heels should be about 16 inches and between the balls of the feet about 22 inches. If we consider a vertical plane passing through the right heel, the extended right arm and the center of the target as the plane of fire, then the left heel should be about three inches to the left of this plane in order to prevent the body from swaying (Continued on Page 13)

Setting the Pace at Sea Girt

By Al Blanco

WHEN the Sea Girt Interstate tournament opened the Sea Girt range on the morning of Thursday, August 28, last, it marked the thirty-first annual competition with the rifle to be held at this historic seaside range so intimately connected with rifle shooting history and the conception and development of American types of arms and ammunition.

From a small beginning in the early days of the sport these annual competitions have grown in attendance and importance. The high water mark of National Match attendance came in 1906; after that the interest in the matches began to fall off until last year, 1923, it became evident that some change should be made if a continuation of the competitions was to be justified. A careful survey of the situation was made, and a determined plan of action adopted, all calculated to infuse new blood and enthusiasm and rebuild that healthy spirit of competition which had always characterized these annual gatherings.

To that end, and to encourage riflemen who had never participated in the Sea Girt competitions, it was deemed necessary to classify the competitors or to segregate them, so to speak, into groups to more nearly equalize their skill and enhance their chances of reward in the respective classes. The first class is open to everybody and provides seven places in the prize list. The eighth, ninth, tenth, and eleventh places in the prize list are reserved for National Guard or Reserve Officers and the twelfth and thirteenth places for civilians. The practical working of this plan is to give the first seven places to the first high scores in each match and after that the National Guard or Reserve Officers take the next four places and the civilians the next two places in the order of scores.

No one who was present during the Sea Girt competitions this year could but fail to be impressed with the practicality of this plan, though in truth it must be said that it did not quite bring out the expected attendance although there was a considerable improvement. This may be ascribed to lack of knowledge of the plan on the part of those who might otherwise have shot through the competitions. It is believed the new plan is sound in principle and that in a matter of two or three years will accomplish all that was expected of it. Whether the Sea Girt competitions will take their proper place in the scheme of things shooting depends entirely on the shooters themselves. The program at least offers the proper encouragement.

The Company Team Match opened the ten days' shooting program with the 200 yard firing line comfortably filled. Teams of four with ten shots standing at 200 yards, and ten prone at 500 and 600 yards gave a good course and equally good competition. The 103rd Cavalry of the Pennsylvania National

Guard shot consistently and well and won the Peter's Trophy with a score of 545. Company H, 111th Pennsylvania, won the second prize to the highest National Guard team and the East Orange Club the prize to the highest civilian team.

The Interstate Regimental Team Match went on immediately the Company Team Match finished, at 200 yards, six men to a team and ten shots standing at 200 and ten shots at 600 and 1,000 was the course. The 8th Infantry was the winner by a wide margin with a score of 841. The 11th Pennsylvania taking second place with 794.

Immediately after lunch the Cavalry Team Match was called at 200 yards. There were but few entries and Troop B of the 102nd Cavalry maintained its good lead at 600 yards that they had piled up at 200 yards and won the match handily from the 103rd Cavalry Pennsylvania National Guard with a score of 362 to 347.

After the Cavalry Team Match was finished the thousand-yard stage of the Interstate Regimental was run off at four in the afternoon. Maryland, Pennsylvania, and the regular services were represented by teams in this six-man team contest at 200, 600, and 1,000 yards. It was a runaway race for the 8th U. S. Infantry because their entire team shot consistently and well throughout.

The Hayes Match and Individual Competition at 600 yards produced some excellent scoring. Private Seitzinger of the Marine Corps had to put on a possible and 31 extra bull's-eyes to win the match from Lieutenant Scheets of the U. S. Infantry who scores 23 extra bull's-eyes. This concluded the first day's program, and it was admitted by all, a very strenuous one.

The second day was given over almost entirely to the Sea Girt National Team Match though the Meany and the All Newcomers Expert at 500 and 600 yards respectively filled in a small gap in the afternoon right after lunch. The weather conditions were excellent. The sun shone brightly and the atmosphere was dry and clear making almost ideal shooting conditions especially in the late afternoon when there was an almost total absence of mirage and the bull's-eyes at all rangers stood out sharply.

Five teams were entered in the Sea Girt National Team Match which duplicates the National Team Match at Camp Perry. Between the first and second team and the U. S. Infantry Team at the completion of the 200-yard slow fire stage there was a difference of two points, indicating very consistent shooting by all three teams. With the completion of the 200- and 300-yard rapid fire stages the race narrowed down to the two Marine teams. There were only two points separating the first and second teams at the completion of these

stages. The first team, however, drew away from the second team after the 600-yard slow fire stage by totaling 481; two of the members Wilson and Cartier registering possible scores.

The conditions, of course, were responsible to a certain extent for some of the very fine shooting and this held true at the 1,000-yard stage when two of the old-timers, Lloyd and Nordstrom registered the possible of 100 for this range. This gave Nordstrom an individual total of 294 over the National Match course, which is not so bad, and the team a total of 2,851, which is sixty-nine points higher than that made by the Engineers Team in winning the National Team Match at Camp Perry in October.

The Meany Match at 500 yards caused a lot of ammunition to be burned up to determine who could stay in the bull's-eye longest. Of the first seven prize winners, all from the Marine Corps, all registered possibles and extra bull's-eyes. The winner being Corporal Feury with fifty-three extra bull's-eyes.

In this match there was an excellent demonstration of the new classification system. It is obvious that if there had been no segregation the fifteen prize winners would have been confined to the hard-hitting Marines or other Service men but as it worked out the National Guard or Reserve Officers got four places; and the civilians came into their own with four winners.

The All Newcomers Expert Match at 600 yards resulted in a tie between Sergeant Jones and Corporal Heller of the Marines and Sergeant of the Infantry; all possibles of 50 each. Cpl. N. W. Dodson of the 111th Pennsylvania won the first place in the National Guard with a 48. N. J. Kerrigan was high civilian also with 48.

The week-end brought a good number of shooters from the surrounding territories as well as representatives for the team matches from the Maryland, Pennsylvania and New Jersey National Guard outfits. Saturday morning saw a continuation of the excellent weather conditions that had so far prevailed and so the Governor's Match and Individual Competition opened only to officers and enlisted men of the National Guard of New Jersey, excepting previous winners, started the day's shooting.

Course A. After a spirited contest the Governor's Champion Marksman badge, presented by the Governor of New Jersey, was awarded to Bugler H. L. Sykes of Troup B, 102nd Cavalry—an outfit, by the way, which specializes in marksmanship.

During the progress of the Governor's Match, the Saddler, which corresponds to the Palma Team Match, at 800, 900 and a 1,000 yards was attracting considerable attention among picked teams from the Marine Corps, Infantry, and the East Orange Rifle Club. The first Marine Corps Team jumped into an early

lead by dropping only five points for the eight men at 800 yards and followed this with only twelve down at 900 and at 1,000, though out-shot by the Marine second team by five points, finished with twelve points to the good over the second Marine Team. The East Orange Rifle Club won the Civilian Prize.

The Veterans Organization Team Match between the first and second teams of the 71st Infantry, New York, resulted in the first team winning by 244 to 228.

The Company Team Match brought out eight teams from the New Jersey National Guard outfits. Troop B of the "crack" 102nd Cavalry rolled up a tremendous score and won by consistent shooting across the range with a total of 1,573. So far the week had been a strenuous one with practically all of the shooting the range and its facilities could accommodate.

The following day, Sunday, was Small Bore Day, when over a half hundred of small borers from New York, Pennsylvania, and New Jersey had their inning. In fact, they had the range on Sunday practically to themselves and on Monday, Labor Day, the entire 200 and 300-yard firing line was theirs as the Regimental Team Match was fired on the 600-yard butts.

The Re-Entry Matches at 50, 100 and 200 yards ran for both days and resulted in some very excellent shooting. The use of targets with the V ring practically eliminated all ties, though the first four prize winners each made a possible. Mr. L. J. Miller, formerly of New York but now of Philadelphia won first place with a perfect score, that is, ten tens and ten V's. J. A. Wilners close second with seven V's.

The mid-Range Re-Entry, ten shots at 100 yards, produced four possibles and resulted in a tie between H. J. Wood and L. J. Miller each with seven V's.

Though Stewart Scott and L. J. Corsa each tied with a possible 50 in the Long Range Re-Entry at 200 yards and each with seven V's, Scott had the most V's at the end of the string so out-Creedmoored Corsa.

In between times the Squadded Individual and Team Matches were run off in order to clean up in the two days allotted to the small bore. The Short Range Match, ten shots at 50 yards, produced only one possible and this was made by Leonard Miller who scored seven V's in case of a tie, but D. D. Hoag was a good runner-up with a 99 and six V's.

There was some real classy shooting in the Eisner Hundred-Yard Match. Though no possibles were made the three ninety-eights made the results uncertain until the V's were counted when it was found that Hoag, Wood, and Neary finished in the order named with six, four and two respectively. This was the first match Hoag had ever won at Sea Girt though many times he has been close to the top.

The N. R. A. Small Bore Match, ten shots at 100 yards was won by Paul G. Peter with a 98 and three V's. "Jimmie" Murray came mighty near to winning this match but some-

body said he fudged out too many nines. He had lots of company.

The Long Range Match—two sighters and twenty for record at 200 yards always brings out keen competition and here again the V's prevented some ties between the three who registered ninety-nines. Kelsey, however, had the greatest number and won the match with Stabler second and Corsa third.

Labor Day was celebrated with three matches; one team and two individuals. Frankford Arsenal fought it out with three teams from the Bear Rock Rifle Club. And the mention of Bear Rock reminds us that "Papa" Hoppes came down with his boys from Germansville and added much to the interest of the competition. These Bear Rock boys, by the way, are rounding into form gradually through the school of experience and before another season rolls around we expect to see several winners of matches, both team and individual, from Germansville. They are deserving of it for their courage, enthusiasm, and persistency and their sportsmanship in coming to Sea Girt for the experience rather than the expressed desire to win. It is only too true that some shooters go to shoot to win. That's not the right spirit nor does it produce the proper spirit. When competition is on the plain of sportsmanship then we will have better competition and less criticism and complaint.

Labor Day was a big day for George Demetter. George is one of those fellows who gets a lot of kick out of shooting and is a good sport in victory or defeat. He takes his medicine as it comes and is optimistic for the future and his day came at last and to forty-one excellent marksmen he showed the way to go across the Palma course clean, which he did by tying the record and joining the ranks of the very few who have gone clean across this course. A. C. Russell gave Demetter a great run for his money but slipped out once at 175 yards and finished one down. Clarence Held demonstrated that he belongs in fast company by nosing out L. J. Miller and H. J. Wood for third place. Wood, by the way, whose ability to get over the Palma course about as cleanly as anyone was clean until 200 yards but he flopped out twice for two fours. This, of course was also Miller's trouble at 175 yards where he dropped his two points.

The Sea Girt Small Bore Championship closed the Small Bore year at Sea Girt in very good style with a galaxy of small bore stars shooting their hardest to take home this coveted honor. Even with a possible at 100 yards and a 48 at 200, Leonard Miller who had shot consistently in all of the events had to be content with fourth place because J. W. Gillies put on a phenomenal bit of shooting by dropping only two points at 100 yards and going clean at 50 and 200. This was real shooting and don't let anyone tell you it wasn't. R. J. Betts made a strong bid but his 245 got him second place with Wilners in third place, on a 244 which outranked Miller, who got fourth place.

While the September Small Bore Shoot was not nearly as large as the July shoot so far as attendance was concerned it was made up of some excellent competitors; in other words, it was a classy gathering, though, of course, there were a great many classy shooters who were not there, otherwise the results might have been different.

The Regimental Team Match over on the big range with the big bore was a rather one-sided competition so far as the 102nd Cavalry was concerned as they piled up a lead right at the start which was never in danger and the final result was 2,475 for the winner to 2,133 for the runner-up—the 113th.

The Regimental Team Tyro Match was also won by the 102nd with a score of 1,186.

Tuesday was given over entirely to the Dryden Team Match and the Nevada Individual, both practically long range competitions outside of the 200-yard stage of the Dryden. The Dryden, by the way, produced a situation that often happens on a rifle range. That is to say when the second team, usually made up of men supposed to be not good enough for the first team, is returned the winner. This happened, though Marine Corps Team No. 1 took a seven-point lead at the 200 stage and added two more to this at 600 so that they went to a thousand with a nine-point lead and this is usually considered rather safe, but team No. 2 developed into a smooth working, hard-hitting combination and did what No. 1 was expected to do, otherwise the result would have been different. At any rate, while No. 1 team was piling up a total of 372, No. 2 turned in 388 which gave them the match with seven points to spare. The New Jersey State Team though in a lowly position benefited by the classification and got third place and the East Orange Club in last place got the fourth prize in the Civilian club class.

The Nevada Trophy Match was probably the best individual competition of the meeting and here again the hard-hitting Cartier of the Marine Corps got first place with the unusual score of 147 over the course. This score is believed to be a record for the match and included a 49 at 1,200 yards. While it is true that the conditions were excellent, nevertheless, this was a mighty pretty piece of shooting. Bugler Sykes of the New Jersey National Guard headed the National Guard group while M. W. Sargent, civilian, of the East Orange Rifle Club lead the civilian group.

The weather on Wednesday, the seventh day of the shoot, was better if anything than the preceding day. The Sea Girt National Individual, always a good match, went to Lieutenant Conrad of the Marine Corps with the excellent score of 286 over the National Match course. Corporal Dodson of the Pennsylvania Guard lead the National Guard group while A. A. Fisher of the East Orange Rifle Club was high in the civilian class.

The Two-Man Team Match is always an interesting competition because usually one man of the team has an off-day while the other fellow goes a way beyond his average. To prove that there (Continued on Page 17)

The Trend in Small Arms

By Lt. Com. E. E. Wilson, U. S. N.

THERE are fads and fancies in small arms just as there are fads and fashions in clothes. These fashions are cyclic in nature; things popular some thirty years ago are coming into style again. In small arms the cycle has had three phases which may be called the "Schuetzen Period," the "Military Period" and the "Modern Period." Inasmuch as the future of small arms firing is of interest to most shooters, it may be instructive to review the history and look into the influences which bring about these cyclic changes, with an eye to ascertaining what the trend in small arms may be.

The so-called "Schuetzen Period" belongs to the years between 1880 and 1910. It was characterized by short range firing, usually from an enclosure, with any type of rifle desired and mostly in the standing or off-hand position. The shooters of the time prided themselves on their ability to "stand up on their hind legs and shoot." This style required the utmost in nerve, for it is in the standing position that "buck fever" plays havoc.

Freedom in the choice of arms made this period the heyday of amateur and professional gunsmiths. It also encouraged experimentation with loads and equipment. The rifle ordinarily took the form of a long octagon barrel with fancy, hand-carved walnut stock, special butt plates, palm rests, double set- or "hair-" triggers, fancy trigger guards and special sights. Much of the ammunition was hand loaded by the shooter right on the firing point. At two hundred yards, the popular distance, ten-shot groups one inch and a half in diameter were made. These compare favorably with the best results today.

The character of the target was one of the important factors in this style of shooting. The "ring-target" was used and it put a premium on accuracy. Thus whereas a hit anywhere in the aiming bull's-eye of the military target counts full weight, in the ring-target there are concentric interior circles, the center one counting the highest. It is not enough, then, to hit the bull's-eye; it must be hit in the center to count full weight. Thus the style of target helped to develop the high accuracy of the day.

The so-called "Schuetzen Fests" were popular, not only with the competitors but also with the spectators. The principal clubs were at Walnut Hill, in Massachusetts, Union Hill, near Hoboken and Shell Mound Park near San Francisco. At Glendale, Long Island, at a shoot held in 1895 over six hundred shooters of national prominence attended and 30,000 visitors were on the range in one day. American marksmen who competed successfully abroad were welcomed home by throngs of ardent friends. Shooting was a big part of

Arsenal accomplished this in friendly competition. With improvement in ammunition came the desire for increased range and so-called "Service conditions." The first step was an advance to mid-range, 500 and 600 yards, followed closely by firing at long range, 800 to 1,000 yards. Difficulty with ammunition at the long range created a demand for a higher powered rifle and caused the Krag Jorgensen to give way in 1908 to the rugged, accurate Springfield. Improvement in both the arm and ammunition has continued until today the Springfield, though not as rapid a weapon as the British arm, is the most accurate Service rifle by a wide margin.

In spite of some opposition the Military Period has clung tenaciously to the principle of machine-loaded ammunition. Just as the Schuetzen rifle had no place in the field, so did hand loading find itself out of place. Machine loading, crude at first, developed rapidly along with the advent of quantity production into industry until now, factory loaded ammunition is the choice of all save a few "gun-bugs" who



The 200 Meter Range of the Societe de Tir de Jura at Lons le Saunier

the national life and it reached then a prominence and popularity it has not since attained. How much this popularity was dependent upon barrels of cold beer served on the firing line is a matter of conjecture.

The second great phase of small arms development called the "Military Period" dates from about 1900 to the present. The enthusiasm of the Schuetzen Period extended into the Army and Navy and prompted the development of Service arms and ammunition. Naturally this was a distinctly different problem. The fancy outfits of the Schuetzen Park had no place on the march or in the saddle. Since the Mauser style of rifle was the accepted type in most armies, the Military Period is characterized by the development of accuracy in the bolt-type Service weapon to the point where it compares favorably with the so-called "free-rifle."

The fundamental requirement of the Military Period was that the Service rifle must be fired exactly "as issued." Since no modification of the arm was permitted, attention was forced on improvement in ammunition. The large ammunition companies and Frankford

prefer to load their own.

The increase in range brought still another feature of the Military Period, the change in firing positions. When the standing position proved too unsteady for mid-range work, the kneeling and sitting positions became popular. Since these were unsatisfactory for long range, the prone position became standard. Ultimately the prone position worked back to mid- and even short range until today we have few American riflemen of the modern school who can "stand up on their hind legs and shoot."

Another feature of long range work is the development of "wind-dope." The old Schuetzen expert had little to fear from the weather but the long range fellow found in wind, mirage and light changes, much to keep him busy. A change in wind direction and force would often mean as much as twenty feet difference in the point of impact at the target. Failure to anticipate the change resulted in disaster and the sport of outguessing the weather became one of the most fascinating features of long range work. At first flags were used as indicators of the force and direction of the wind. Later the drift of mirage or

heat waves on the earth's surface supplanted the artificial aids. The successful military rifleman had to be clever at sizing up the topographical features of a range. The classic story is that of a shooter who won an individual championship by judging the wind from the flapping of an arm of an old shirt draped by accident (or canny design) on a bush near an opening in the woods.

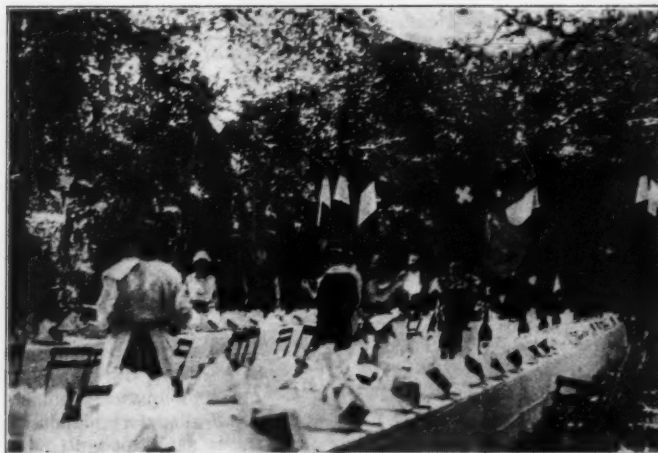
The Military Period has not been entirely successful in bringing rifle shooting to the most people. Long range firing restricts competition to certain limited localities. It is impossible to fire high-powered cartridges at long range in the vicinity of cities. Again, the civilian naturally resents domination by the military in his sports and pleasures. To be popular a sport must appeal to large numbers who can carry it on in their own way. Again, when firing is restricted to the military arm, all the fascination of amateur gunsmithing, experiment and research is eliminated. The

ever, an entirely new outlook on the shooting game. They had found it a wonderfully popular sport abroad, so much so in fact that they were moved to seek out the reasons. These were quite obvious. First, the short 300-meter range, which was fully enclosed with barricades and walls to trap wild shots, could be placed right in the middle of a city. Second, the ring target placed a premium on accuracy so that there was as much fascination in close shooting alone as the American found in his wind doping. Third, the elimination of wind through enclosing the range removed all external influences and elements of chance so that the score attained was an exact measure of the holding skill of the individual. No alibis were offered or accepted. Fourth, the "free rifle" brought to the shooter the lure of gunsmithing and restored that great pleasure, the ownership of fine ordnance.

In 1922 the American team successfully defended the Argentine Cup at Milan, Italy.

way. Since the men shooting these rifles were also engaged in the military rifle game, it was natural that they should introduce some of these free rifle modifications into the Service rifle. The 1924 International Match rifle incorporated a number of these changes, among which a faster lock was the most important. In other words, participation in the International Free Rifle Matches has resulted in material improvements in the Service weapon. At the same time, American arms and ammunition have established a reputation abroad. The art of small arms firing has been materially advanced by a free exchange of ideas.

The important result of the renewal of intercourse with foreign teams is the revival in America of the "free rifle" matches. It is certain that this style will be shot side by side with the military style in the future. Already there is a revival of amateur and professional gunsmithing in this country and and interest is greatly stimulated. When



The lunch table of the rifle range at Lons le Saunier. This range has been in operation 52 years. It is a question just how much of an attraction the shooting is. Possibly an Eighteenth Amendment enacted in that country would see the end of this and all other such rifle ranges.



The shooters at luncheon. It will be noted that these competitors are properly dressed for such a banquet. All they need in the way of shooting clothes is to slip on a linen duster. The man standing at left in picture has on this conventional European duster. Is it any wonder these folks kicked at our elbow-pads and sling-straps?

Military Period has succeeded in developing a superior military rifle, but the shooting game as a whole has suffered.

The third period, which has been designated as the "Modern Period," has really just begun to take form. It owes its beginning to two developments, first a renewal of competition with foreign riflemen, and second, the rise of the small bore or "twenty-two." In 1921 a team of American riflemen went abroad to compete at Lyons, France, in the classic "Free-Rifle" Match of the International Shooting Union. To the surprise of all hands, including the Swiss, who had won the match fifteen consecutive years, America won the tournament and an American, Walter Stokes, of Washington, D. C., won the world's individual championship with the high aggregate for the match as well as the individual championship in each of the three positions, standing, kneeling and prone. The clean sweep was practically a victory of the American Service rifle over the fancy "free-rifles" of Europe.

The 1921 team brought home with it, how-

Stokes again won the individual championship and was again dubbed "Champion du Monde." This time the team was better equipped, having modified the Service rifle by the addition of such desirable features as heavy barrels, set-triggers, palm rests and butt-prongs. While these attachments may have helped somewhat, the match was won through superior team work and a definite superiority in the prone position. Foreign teams, unfamiliar with the use of the sling, were reluctant to adopt it even after the lesson of 1921. It is likely they will be less reluctant in the future.

In 1923, the International Free Rifle Matches were held in the United States but no foreign teams competed. The American team shot over the course and established a world's record. Sgt. Morris Fisher, U. S. M. C., was the champion this year. In 1924, the American team repeated its victory in France and Fisher retained the championship of the world. During these four years of international competition the military rifle was modified to the point where as a free rifle it now excels the best foreign products in every

rifle ranges return to the cities, the popularity of shooting will be greatly increased. Military shooting will be left more and more to the military and the civilian will run his own matches.

Simultaneously with the recrudescence of the Schuetzen style has come a great surge of enthusiasm for the small bore rifle. Small bore shooting removes the handicap under which military shooting has labored, namely, the inaccessibility of rifle ranges. This style is fired indoors at fifty and seventy-five feet; outdoors at from 100 to 200 yards. The long rifle cartridge is used in both styles and its accuracy is astonishing. The low cost of ammunition brings the game within reach of all. This has resulted in enthusiasm in the organization of thousands of civilian rifle clubs, in the training of boys and even girls in school or R. O. T. C. units and in a revival of interest in college competitions. The movement is a spontaneous one which is being directed by the National Rifle Association of America in Washington, whence correspondence matches are run.

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The American Rifleman

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THE MINUTE MAN, 1775

C358

The year of 1776 found the descendants of the early settlers in revolt against the Mother Country. Ill equipped and armed with every type and caliber of firearm, they earned undying fame at Concord and Lexington, as the "Minute Men" of the Revolution.

DEALERS in firearms and ammunition and all those who handle either or both should take a keen interest in the question of whether the firearms they handle may safely be used by our people. During the past few years a flood of cheap and unsafe firearms has come to us from Europe. The material used in these guns is a very poor quality; the workmanship bad. From many reports received we know that these guns are unsafe because in nearly every case it has been found that the accident reported was either due or partly due to the cheap and unsafe arm used.

The customer looks to the dealer for guidance in the purchase of a safe and suitable firearm. He assumes that the dealer knows what he is talking about when he hands one of these cheap guns over the counter and says, "Yes, this is a good gun. The same gun in this country would cost you five times as much; they are able to make them so cheap because everything over there is cheap." Yes, everything over there is cheap if you want something cheap but in Europe they are not permitted to traffic in the guns that they ship to the United States; they would not stand for it.

In Europe are made guns costing hundreds and in some cases thousands of dollars. Some very fine workmanship is observed in England, Scotland, and other parts of Europe. For centuries they have made guns in Europe and the finest examples of gun makers' art are still being produced in England.

In Canada recently, after a careful investigation of an accident, the jury offered the following warning in addition to their verdict, "We recommend most urgently that the attention of the proper authorities be brought to the unsafe class of rifles which sell at a figure little more than that of a toy and can be purchased apparently quite easily by boys unskilled in the use of firearms."

While it is true that our tariff regulations should be more rigid with respect to the importation of products from continental Europe, we should not wait for revision of the tariff. Our dealers should immediately take upon themselves the full responsibility in this matter and refuse to handle any firearm

that does not bear the name of a manufacturer of standard goods. Moreover, our own manufacturers are entitled to some measure of protection against this cheap and unsafe competition.

Canada is suffering from this same flood of shipments because the records show that last year more than fifteen thousand cheap German rifles of .22 caliber found their way into Canada and were distributed at ridiculously low figures to the buying public. The workmanship was very poor. Numerous accidents have resulted and in one particular case resulted in the loss of human life.

Any American dealer who sells a cheap foreign gun must take upon himself the full responsibility for so doing because that gun he sold is unsafe and a menace to a human life somewhere. The most practical way for every dealer is not to handle these guns at all.

* * * *

WITH the coming of winter and the turning of the shooters' thoughts toward indoor shooting, the live wire club secretary is giving thought to the added opportunity afforded him for building up the fraternal spirit within the club. Winter nights are long and there is an inherent desire among the human race to seek diversion of some sort to pass away the long hours. It is generally true that the turnouts at well equipped

The Sociable Season galleries are much larger during the winter months than turnouts on outdoor ranges during the summer. The shooting itself appeals with all the call that is necessary to get out the dyed-in-the-wool bug. But to interest outsiders, to encourage novices to become on intimate terms with the regulars, and to build up pride in their club among all the members, some additional activities along social lines are of immense value.

It is during the winter months that shoulder-to-shoulder matches can be made particularly attractive by providing a supper or some form of entertainment for the visitors following the conclusion of the scheduled match. Smokers were tried by several clubs last winter, with a considerable measure of

success. This form of entertainment is recognized by sportsmen everywhere, and as the smoker program is usually a fast moving, snappy one, the shooters of a community will generally turn out in full force if the affair is properly advertised and programmed. Columns of this paper have carried numerous items covering entertainments of this description.

The club which has an attractive range and comfortable clubrooms is, of course, the club best equipped to promote social functions during the winter. On the other hand, there is no better way nor better time for the poorly equipped club to gain the support which it needs in order to get comfortable quarters than during this winter season, when, through various forms of entertainment, the maximum number of new friends may be made and the maximum amount of additional money placed in the treasury.

Plans which are already afoot in several communities will result in making the rifle club one of the best advertised and most popular community recreation centers of the city. The same end can be attained anywhere if enough thought, planning, and hard work are devoted to the gallery campaign.

"Energy and Killing Power"

(Continued from Page 3)

these methods, you enter the realm of philosophy and leave that of ballistics.

Now, how about the other method—that of the horsepower expended by the bullet in its flight? Can we figure it? If you can handle transcendental functions, yes. But is that all the horsepower expended by the bullet? Not by a jugful! You see the bullet still has some velocity at the end of its maximum flight and still possesses some force. But if we are to determine the total horsepower expended by the bullet, we must know what that force is and how long it takes to use it up. Take a rifle with a range of about three miles or more, you have a fat chance of hitting anything to measure that force or its rate of expenditure. And calculations at the tail end of a bullet's flight surely will approach Mr. Thomas' claims. Even allowing for an abrupt stopping of the bullet, that very same Springfield bullet will develop considerably less than half a horsepower, averaging its whole flight. Its maximum will be much greater, of course, but its minimum much smaller. Now we are all set to figure our killing power in terms of horsepower. About the most logical determination, I think, would be to assume that the bullet will kill one horse for each horsepower developed and pro rata the other animals according to their numerical equivalent to horses. This would, of course, introduce an entirely new branch of ballistics, but that's a small matter.

Evidently somebody is a little confused. Energy is not killing power. Death has a little way all his own, and the only branch of mathematics which has any hold on him is that of combinations and permutations—the basis of actuarial statistics, if you please.

Nor is energy, exactly, a measure of the blow struck. Unless the object hit stops the bullet completely there is little means of determining how much work was expended on it (on an animal, anyway), or the force of the blow. If the bullet meets with any real resisting tissue at all, it really becomes a matter of work done. Believe me, it takes some work to tear the heart out of a deer as the .30-40 Krag does, and I've yet to hear of the .45-90 doing that.

From Mr. Thomas' remarks, I should say he referred to the old lead alloy bullet for the .45-90 and the service ammunition for the Krag (which has about the ballistics he gives). Quite a difference, I should say. Neither of these bullets expand appreciably, but the .45-90 has two and a quarter times the area of the .30-40, and under the same conditions a deer would probably absorb all of the energy from the .45-90 bullet, and only about one-fourth of the .30-40's energy. In other words, the .45-90 would do more work (have more shocking power) on the deer than the .30-40 would do. But put a soft nosed bullet on both of them and there's a different story to tell. See what Mr. Carson has to say about the .30-'06 Hi Speed on game on Page 14 of the May 1 issue! Personally, before I carry ten and a half pounds of 1886 black powder twist Winchester around and pretend I'm enjoying it, I'll take a high power rifle (with the energy measured in foot pounds) which will do more work on the object of my quest.

There are, of course, other things which determine how hard a blow a given bullet will give. Take a metal patched bullet, for instance. In its first stage of flight (the extent of which depends on a number of things and varies with each gun and each bullet fired) it will knock a man down before he realizes he is hit—and this without the man losing consciousness. From the way it feels I am quite sure it would knock an ox over, but it wouldn't tear out much flesh nor make a wound difficult to heal unless hit vitally. In the second stage of its flight it might kill a man outright, but he'd just slump down—he wouldn't flop over. In its final stage, when it is tumbling end over end, it hasn't very much energy, but believe me it will deliver all it has. Lest you think I am spilling a lot of hot air, let me explain that I performed as a moving target for a number of months (among other things) and also performed on other moving targets, and during that time I had a great deal of opportunity for observation. I assure you that even the metal patched bullet is some dispatcher, much underrated.

Evidently there are a number of things which determine the efficiency, shocking and killing power of a bullet. But this does not gainsay the fact that a table of ballistics in ft. lbs. is valuable as a basis of comparison, which is what it is for. But you must consider the type of bullet you want to use, the range at which you expect to kill and what you expect to kill. Put your dope on the same basis if you want to make comparisons of killing or shocking according to foot

pounds, and you'll have something to go by.

It seems to me that a failure to grasp the meaning of foot pounds and horsepower would make a man rather cautious in his derision of them. They are rather simple things, which fact undoubtedly lends to their difficult comprehension. Considering the number of college men who spend about a year studying physical science and then stutter when it comes to working a problem involving mass, acceleration and force, it isn't a disgrace to be mixed up on the subject. They do take a lot of working with to get them at your fingers' ends, and there are surprisingly few people who have studied them who have them there. I do hope this will take the sting out of any unintentional sarcasm in the foregoing.

The explanation of what recoil is and how it works and why, is just as simple and just as logical as the foregoing, but it would take just as much space to go into. Perhaps this will get by the censor and a future dearth of material will allow a short dissertation on the subject in some later issue. Anyway, I hope I have convinced somebody that my logic is better than the schoolboy's. In conclusion let me state that one pound falling a thousand feet is equal in energy attained or expended to that of the thousand pounds falling one foot. The amount of work is the same in both cases, so the energy expended is the same!

1925 Match Ammunition

(Continued from Page 2)

extremely small. Among them may be mentioned the second and thirteenth targets of Lot No. 1. The first of these showed a mean radius of 1.61 in., a vertical of 5.05, a horizontal of 3.89 and a spread of 5.30. The second showed a mean radius of 1.68 in., a vertical of 4.22, a horizontal of 4.28 and a spread of 4.90.

The outcome of the 1925 National Match ammunition test would appear to prove conclusively that Frankford Arsenal has obtained a projectile which in itself is an improvement over anything heretofore developed, and at the same time indicates that it is possible to manufacture and load nitrocellulose powder to give as accurate results as any type of propellant heretofore developed.

The fact that National Match ammunition is strictly a machine loaded, quantity production ammunition only adds to the degree of excellence exhibited by the new nitrocellulose load in winning this year's test. Judging from the results of the test the "cut" of the grains—to use the technical expression—in 1147 powder seems particularly adapted to uniform machine loading. This feature of 1147 powder has been borne out by previous "loading uniformity" tests which were conducted at Frankford and which showed an extremely small variation against percentages for other powders ranging from one-half to seven-tenths of a grain.

The riflemen at the 1925 National Matches may accordingly look forward to ammunition of remarkable accuracy, superior wind-riding qualities and somewhat less erosion than was evident during 1924.

Pistol and Pistol Shooting

(Continued from Page 6)

in a wind. The main result to accomplish is to take a position such that the body is *perfectly balanced with a minimum strain on any set of muscles*.

The position of the left hand when a man shoots with his right hand, should be such as to keep it out of the way and where it will aid in the balancing of the body. Placing it high on the hip raises the left shoulder and may cause a tiresome strain of the shoulder muscles. A good natural, comfortable position for it is in the side trouser pocket, or even in the hip pocket, though it is believed the former is preferable. The shooting arm should be fully extended without rigidity and maintained in this position during the firing of each shot. The work of supporting the arm and pistol should be done mainly by the heavy shoulder muscles rather than by the arm muscles. This is accomplished by slightly raising the right shoulder. In gripping the pistol care should be taken to see that it is well seated in the shooting hand. This is especially important with the Service automatic because of the size and shape of the butt which does not fit the hand as naturally as does the revolver. The grip on the pistol should be as high as the particular weapon in use will permit, with the thumb extended naturally along the left side of the piece, the whole idea being to bring the barrel as nearly in prolongation of the arm as possible. The tendency with any large weapon is to have the hand too much on the right side of the piece so that the barrel is not directly in line with the forearm. This is especially true when using the .45 automatic. The grip on the butt or its position in the hand should always be the same. Permitting the grip to change from shot to shot may result in changing the elevation of your hits on the target. The pressure on the grip or the strength used in holding the weapon in the hand should be only sufficient to hold it firmly, as firmly as one might hold an egg of questionable age; firm enough to be sure of not dropping it and yet not tight enough to crush it. To do either might be unpleasant. The heavier the caliber and recoil of the weapon the firmer must be the grip, especially in rapid fire. It must, however be constantly borne in mind that the tighter the grip on the weapon the greater the muscle strain and consequently the more nervous tremors in the hand. The modified trigger, grip safety and mainspring housing of the improved .45 Service automatic pistol will greatly facilitate the proper gripping of this weapon. These spare parts can be obtained directly from the Colt factory at very little expense.

In mastering the technique of pistol shooting there are certain main essentials that must be learned. These should be studied carefully and then every effort should be made to execute them exactly. The great problem before the shooter is one of physical and mental coordination. When he has assumed a correct shooting position and pointed his pistol at the target he has to concentrate on four

things. He must align his sights properly or aim his gun. He must maintain these sights in alignment by holding his arm and pistol with a minimum of movement, and while so doing he must hold his breath and slowly squeeze the trigger when his sight alignment is correct, and then he must do still more and that is to think ahead and call his shot, or make mental note of the exact spot on the target on which his sights were aligned at the instant the piece was fired.

The principles of aiming are easily learned. There is only one correct method and that is known as the normal method or what years ago was known as taking a half sight. In this method the front sight should be centered in the notch of the rear sight for direction and the top of the front sight carefully aligned with the top edge of the rear sight for elevation. This is most easily and accurately done with a rectangular, or Patridge front sight, which just fills the notch of a rear sight having a horizontal upper edge. This form of sight is more generally used than any other for target shooting. The line of sight thus formed between the eye and sights is then made coincident with the target preferably at the lower edge of the bull's-eye. Most good pistol shots keep both eyes open while aiming and firing. The beginner should learn this method of binocular aiming because of its natural advantages. However, the right-handed shooter whose left eye is the master eye may find it difficult to aim easily with both eyes open and he then has the choice of closing the left eye while aiming or of learning to shoot with the left hand. Closing the left eye would be preferable unless one were left-handed. To determine the master eye, extend fully the right arm and index finger. Keeping both eyes open, carefully align the top of the finger with a small object some distance away. Without moving the head, close the left eye and if the sight alignment between eye, finger and object appear the same as with both eyes open the right eye is the master eye. If the finger appears to point to the left of the object then the left eye is the master eye.

Trigger squeeze is all-important with the pistol and its effect much greater than in rifle and shotgun shooting. One may be able to pull the trigger of a shoulder gun without deranging the aim, as such weapons are firmly supported by the shoulder, arms and hands, whereas the slightest movement of a pistol trigger finger has a tendency to cause an unsteadiness in the balance of the pistol and a corresponding movement of the line of sight. Too much emphasis cannot be placed on the necessity for care in learning trigger squeeze and on this one detail endless time can be spent. To the artist skillful with pencil or brush or more particularly the clever surgeon schooled in the accurate use of delicate instruments the necessity of smoothness and accuracy in releasing a hammer by proper trigger squeeze is at once evident and a realization by them of the care required in this operation may account for the fact that in the ranks of the pistol shooters are found a large percentage of men of the medical profession. Until a person can squeeze his trigger without de-

ranging his aim while the hammer falls, he should confine his work to snapping practice and his ultimate success and progress will be in proportion to his efforts spent in solving this problem. Pressing on a trigger in any direction except straight to the rear causes a deflection of the muzzle and a corresponding disalignment of aim. Suddenly jerking or pulling a pistol trigger has ruined many a good score and lost many a close competition. The trigger should be squeezed with that part of the trigger finger which rests naturally on the trigger when the weapon is properly seated in the hand and the squeezing should be done only with the trigger finger and not with the whole hand.

In connection with trigger squeeze it might be well at this point to caution the beginner against desiring too light a trigger pull until he has become reasonably expert with the pistol. A very light trigger pull for an untrained trigger finger is conducive to flinching—than which there is no greater obstacle to progress. A good clean pull of not less than $4\frac{1}{2}$ to 5 pounds is plenty light enough especially on a straight pull automatic pistol.

Too little emphasis has been placed on "calling the shot" in pistol shooting. While it is essential that we aim correctly, hold steadily and squeeze properly, a correct performance of these operations will be of little value if we neglect the fourth essential. The greatest obstacle the novice has to overcome when he begins firing is that of flinching. He will soon learn to aim, squeeze and hold well enough to make respectable scores, but will find that he repeatedly pulls wild shots, because he flinches. *More annoyance, discouragement and failures in pistol shooting can be blamed to flinching than all other elements of the game.* If it was possible for a man to put out of his mind all thoughts of what is going to happen when the hammer falls or if it was possible for him to become absolutely mechanical in the technique of firing he would then be able to eliminate flinching or at least to so minimize the tendency that he would have little to fear from that source. Anything that can be done to accomplish this result is an aid to shooting and for this reason alone "calling the shot" is very important. In addition to assuring a shooter that he knows exactly what he is doing at every instant of the time spent in getting a shot away correctly, the concentration required in closely watching to see where his sights are aligned at the instant the explosion blots out the picture, causes him to forget the reaction that will occur when he hammer falls; consequently if he flinches at all it will then be after the bullet has left the barrel and no harm will be done. After the shooter has taken his position, aligned his sights, held his breath, and begun squeezing he should put out of his mind everything except calling the shot until the piece fires and if he does this he will soon find that his flinches become fewer and his scores are greatly improved.

To the novice the problem of holding appears the most difficult of the four essentials to master. With muscles and nerves untrained in the art of steady holding one finds that the muzzle of a pistol fully extended by

the shooting arm does everything but remain coincident with the line of sight from eye to target. There is only one way to overcome this unsteadiness and that is by continual conscientious practice. Reducing this tendency of the pistol to move erratically across and around the bull's-eye will call for the exercise of all the patience and self-control the beginner possesses. He must not expect to be able to train his muscles in a day or a week, but must approach his work in holding with the idea of slowly improving and keep in mind that good scores can be made with an unsteady pistol provided he gets his shot off with a smooth trigger squeeze at the time when his sights appear properly aligned with the target. Close observation of some excellent shots will show that they seem to have a very unsteady muzzle while aiming and squeezing and yet shoot fine scores. The beginner should remember that a movement of the shooting arm parallel to the line of fire, can be considerable and still not get the shot out of the "8" ring, but an appreciable angular movement of the muzzle from the line of fire gives a wide shot. The best results in holding will be obtained if practice is conducted after a period of rest. A few minutes of relaxation spent in quietly sitting down between practice scores, while snapping or shooting will have a noticeable quieting effect if properly utilized. On the other hand, physical activity such as running, rapid walking or similar exercise just before practice will increase the pulse and consequently the unsteadiness. Slow, deep breathing between shots or scores has also a quieting effect on the pulse. One should keep constantly before oneself the knowledge that unsteady nerves and muscles are capable of a vast amount of training and the effort to train them makes the game worth while. There will come days on which the barrel appears to "lay in a groove" for the shooter and if he has mastered his trigger squeeze so he is able to get his shots off during these perceptible periods free from movement he will be astonished at his scores. When after more or less careful practice and perseverance one is able to shoot well enough to qualify as an Expert Pistol Shot over the Army Dismounted Course without any uncertainty, then pistol shooting becomes a real pleasure and enthusiasm for the game grows by leaps and bounds. It is then that one begins to look around for other worlds to conquer and this usually takes the form of specialization in one or more of the different styles of shooting in which there is keen competition for supremacy among pistol shots. The thrill of competition shooting with all its ups and downs gets into the blood of the enthusiast, the acquisition and possession of especially fine weapons for the different phases of the game is a source of endless pleasure while the satisfaction that comes from the knowledge of success gained in an undertaking as difficult as learning the Art of Pistol Shooting is the greatest reward of all. It is then that we are able to appreciate the words of one of our shooting philosophers who says: "Once a shooting man, always a shooting man, never changing, never losing interest and never growing old."—From *Coast Artillery Journal*.

Turkey Shoots at the Camp Fire Club

By Karl T. Frederick

THE Camp Fire Club of America to which I belong is an aggregation of men who like to shoot and fish. It has a large tract of wild land some thirty-five miles from New York on which it has built several log cabins and there the members go whenever they feel like a day or two of simple life in the woods.

For the last couple of years we have held turkey shoots before Thanksgiving and Christmas and as these have been enthusiastically successful and as I think some of the features are novel, it may be that others would like to hear about them.

There are two propositions that we try to stick to. The first is that as nearly as possible all of the money taken in shall, after meeting expenses, go back to the shooters in the shape of turkeys which they have won. As a result at each of the turkey shoots last year we gave away at least sixty-five turkeys. The other points has been that every participant

body counted eight. The rear quarters counted five and the legs counted one. This match was pretty much a skill match although it did not always go to the best prone shooter by any means. It was in great demand and a score of 46 was generally good for a bird.

Next we had a skill match shot prone with Springfields at one hundred yards on the hundred-yard small bore target which shows a ten spot two inches in diameter with circles every inch outside of that. Those who wanted to depend on their skill competed in this match.

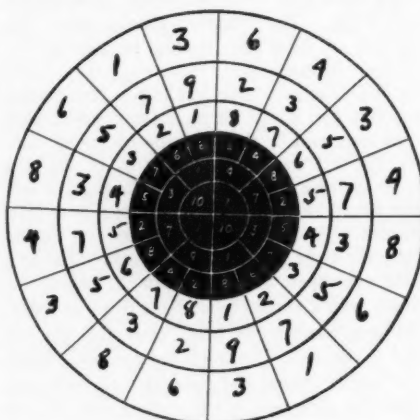
The remaining matches were almost wholly matters of luck. We took a standard American fifty-yard pistol target and divided it into sections by drawing radii from or near the center. The various areas were then arbitrarily given different values as will be seen from the picture. The match was five shots at this target off shoulder. A hit would count in accordance with the value of the highest area touched, a miss would count zero and the highest total would win. A man who hit very near the center of the target might get ten for his shot or he might only get one. In this way the contest was just as much open to the poor shot as to the good one. The only thing a man had to do was to actually hit the target. A great many of these matches were shot. This was varied by making the lowest score the winner. In other words, the man who would get the smallest total for five shots would win, but in this case, of course, a miss would be counted as ten.

We also had some interesting shotgun matches. We placed a number of traps at different parts of the field. Some would throw from left to right, others from right to left, others from the ordinary trap house and another from a distant point straight toward the shooter. One trap was mounted behind the shooter and threw the bird over his head. A hand trap was also used once or twice, generally being thrown straight into the air. The ordinary course was seven or ten shots and this kind of match provided great sport.

In another match everybody shot twenty-five shots. A number was then drawn from a hat, this number being one of ten numbers in the hat running from fifteen to twenty-five. The participant whose total was nearest to the number drawn was declared the winner. This, of course, reduced the matter of winning a turkey to an absolute uncertainty.

Our shoots were run Saturday and all day Sunday and the enthusiasm was so great that many men asked for another shoot a month later.

So far as I know the style of lucky target is novel and any club wanting to hold a turkey shoot where everybody has a chance to win will, I think, find the target very satisfactory.



The Camp Fire Club's "Luck" Target

shall have a chance to win and that some of the matches shall not be based purely on skill.

We have placed no limit on the number of matches. Any seven men may make up a match, paying an entrance fee of one dollar each. The winner receives a turkey, or rather an order on a butcher for a fine bird. We found from experience that seven dollars paid for the turkey and left enough over to meet expenses.

One of the most popular matches was the "rising bear." We cut a silhouette of a bear from beaver board, painted it black and mounted it on a target carrier in the hundred-yard pit. The shooter took his place and called "ready." The carrier was then raised exposing the bear for three seconds; it was then lowered and presently raised for another three seconds—five exposures—the shooter to shoot off shoulder, one shot at each exposure. An eight-inch circle over the head counted ten. The head and the forward half of the

The Trend in Small Arms

(Continued from Page 10)

Naturally, since military shooting was in the ascendancy at the birth of the modern small bore movement, the new small bore rifles are adaptations of the Service arm. Springfield Arsenal has developed the "1922 Springfield" modeled along the lines of the Service rifle but designed for the small bore cartridge. The Winchester is another example of the same type. No doubt, as the game develops, the free rifle style will take its place more prominently in the small bore game and add to the interest. Whereas most free rifles are single shot guns, the rifles mentioned above are capable of rapid and magazine fire. Obviously each has its own field of usefulness.

Along with the free rifle movement, and perhaps a little in advance of it, has come the adaptation of the Service action to sporting rifles. The Springfield, handsomely stocked to suit the requirements of the individual, has become popular as a sporter. While not permitted in strictly military matches, this rifle comes into its own as a target gun for free rifle matches. This has a tendency to swell the ranks of target shooters with game shooters who must remain idle otherwise during closed seasons.

We find, then, two great subdivisions in the shooting game, the Military and the Free Rifle. Each of these is again divided into the small bore and large bore classes. Since these four subdivisions make shooting possible for all manner of enthusiasts, it is evident that a revival is about to take place in the shooting game and that, if properly directed, this may assume great proportions and become an important factor in national defense. Riflemen are at last coming to the realization that any shooter, free rifle, small bore, game or otherwise, is better material for the military rifle game than one who doesn't shoot at all. Obvious as this may seem, it has not always been appreciated.

The degree to which shooting may be carried is indicated by an experience in Switzerland after the match of 1922. At Lucerne, the rifle team label on the baggage was an open sesame at the hotel. It developed that the manager, a colonel in the reserve, was an enthusiast and invited us to shoot with him on Sunday. The hotel barber was also a shooter and discussed the big match intelligently while cutting hair. Even the girl clerk, who recognized a picture of Walter Stokes which had been printed in the Kodak shop where she worked, had been a competitor in the "Flaubert Dames," or women's small bore match. On the way across Switzerland on Sunday it was noted that every village and hamlet had a Schuetzenhaus running full blast with white targets bobbing merrily across a green valley, while far up in the Alps, men and boys were shooting at paper targets stuck on trees alongside the track. At Lausanne, Josiah Hartman, who built some special Martini rifles for us, smiled when we remarked on the popularity of shooting in Switzerland and admitted that he had a range of his own

in the back yard and that every morning he fired a string or two before breakfast from his bedroom window while his children scored the shots in the pit!

Thus do the disciples of Wilhelm Tell hand down his tradition. It may be idle, but it is nevertheless interesting, to speculate on what influence the knowledge that the Swiss are a nation of riflemen may have had on the German decision to invade Belgium rather than Switzerland. No one can say, yet most people will agree, that a handful of skilled riflemen at the entrance to a mountain pass would be somewhat more formidable than thousands of golf professionals, for instance, mobilized at Garden City, Long Island, in the defense of New York. Small arms firing as a sport is enough of an asset in national defense to warrant considerably more support than it now gets. The problem before those interested is to restore it to its former position as a sport. Even in the naval and military branch there is great room for improvement. Some officers who wear their pistols gracefully at general drills would likely endanger themselves more than an enemy if they undertook to fire.

As an indication of the manner in which the different varieties of small arms firing may be mutually helpful, it may be of interest to recall a personal experience. Firm in the conviction that a military rifle team could be trained on the military small bore rifle, I undertook to develop a ship's team on the U. S. S. Bridgeport. The ship at the time was cruising in the Caribbean and, either at anchor or underway in the open sea, subject to considerable motion. Some thirty enlisted men who had never before fired any rifle were put in training with the Model 1922 Springfield. They were exercised at the different types of firing and their interest was stimulated by competitions. From their small bore training they went directly into a .30 caliber competition, which they won. Subsequently, they entered four other matches, all of which they likewise won. They made a clean sweep of the Fleet Matches of the Scouting Fleet at Guantanamo, Cuba, and then was demonstrated their superiority by a wide margin. The results attained excelled the most sanguine hopes at the outset.

The lure of small arms firing, to those who know it, is much like that of golf. There are certain mechanics to its technique that everyone must master, but once these are in hand the game becomes primarily one of self control. No one can hold a rifle or pistol absolutely steady for long, yet it must be held so during the firing interval. On the firing line a man fights a battle with himself. On one hand is the impulse to yank the trigger as the sight swings past the bull's-eye; on the other the will to hold and not let go until the sights are steady on. Each shot is a battle with one's impulses; each bull's-eye, a victory for one's self. Like golf, shooting has its "form." One must even keep his eye on the ball and follow through. For the military man shooting is at once a sport and a part of his profession.

Small arms firing entered the modern period

with an appeal to every type of shooter. Just how far we may go and how much interest may be demonstrated will depend upon the policy pursued by those directing the movement. In some quarters there is a tendency to ridicule the so-called Schuetzen style and to associate it with the stein of ancient history. Some .30 caliber marksmen are prone to look down upon the small bore shooter. Once they have tried this game and learned its difficulty, they learn to look up and to marvel. Some people are prone to consider international competitions as a waste of money and to class them as junketing trips for the privileged few. International competitions have more than paid back their cost by the stimulus they have offered to the shooters of the country and by the improvements they have brought about in the arms and ammunition. Let us hope that each style of shooting will continue to be fostered in order that shooters may choose their own style if they wish, and even by choosing different styles be able to enjoy themselves at their favorite sport the year round.

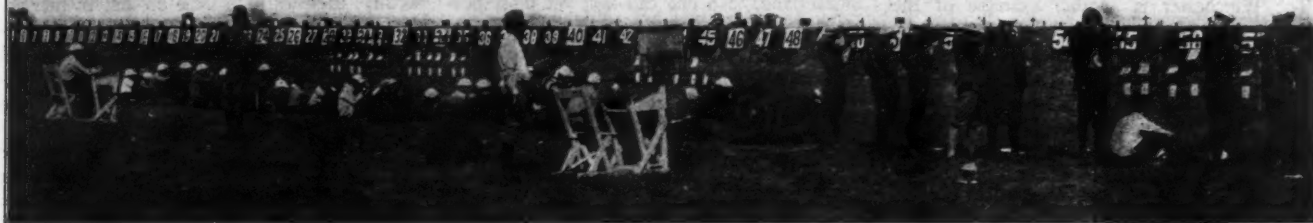
In any activity, whether it is sport or business, progress brings refinement. Our riflemen are prone to "garb themselves like Rugby players," as a Milan newspaper facetiously remarked, and to grovel in the dust of a firing line. Your European shooter wears his business suit to the Boiler House and puts on a clean linen duster as he steps to the firing line. They know how to enjoy and amuse themselves over there. Considerably less strenuous, they are none the less enthusiastic, and, for illustration, I quote from a letter written by Commander Osburn and enclosing the three photographs illustrating this paper:

"I am enclosing three films showing a portion of the range of the Societe de tir de Jura at Lons le Saunier. One is part of a 200-meter range. The other two are views of the open-air lunch table before and after taking as it were. I invite attention to the empty bottles. This range has been in operation something like fifty-two years and I do not hesitate to call it the shooter's paradise. It is located on the side of an old monastery at the top of a hill from which may be had a view of the whole countryside. It includes ranges for the pistol and rifle, a 20-meter range for *revolver de ordonnance*, a running boar range and a *petite carabine pour dames*. All matches were re-entry, and if one did not feel like shooting, one could park out underneath the trees and drink a little wine for a change. It is an ancient custom to go to the range for breakfast, the main feature of which is onion soup, which must be eaten. After that you can have your choice of almost anything, including the wine of the country. Imagine wine for breakfast."

Perhaps it is too much to hope that some day we may shoot from a clean firing line between rows of shade trees out of the sun and wind. Perhaps it is too much to hope that we may have wine for dinner, let alone breakfast. It is not too much to hope, however, for continued progress in small arms, for the game is on the up-swing and if we continue to permit it to develop in a healthy way the time may come when the Disciples of Daniel Boone will be as numerous in proportion as are those of Wilhelm Tell.

THE W. J. R. C. EVENTS AT PERRY

by B. M. RUSSELL



THIS year some sixty-five boys and girls ranging from seven to eighteen years of age gathered at Camp Perry under the direction of the Winchester Junior Rifle Corps and competed in the national shoulder-to-shoulder W. J. R. C. events and the N. R. A. Inter-City Individual Championship. The national shoulder-to-shoulder event was divided into three divisions: Class A for those who could qualify a score of 180 or more in four positions; Class B for those who could score over 150 in four positions; and Class C for all under 150 and those beginning the work this year.

The Class A event was won by Harry Renshaw, a seventeen-year-old boy from Nogales, Arizona, who made a score of 198 out of a possible 200, using the four positions and shooting in a nasty cross wind. Renshaw later made a splendid record for himself in the major N. R. A. events. The runner-up in this event was Raymond Blanchard of Evanston, Illinois, who shot a score of 195. John Heiss of West Lafayette, Indiana, and Orrin Rutledge of New Haven, Conn., also made a score of 195. Blanchard was declared runner-up by his making twenty-three A's. Heiss had twenty-one and Rutledge, twenty. Heiss therefore took third place and Rutledge fourth.

Class B was won by Wm. Ernewein of Lakewood, Ohio, who made a score of 190 out of a possible 200 in four positions. Ernewein did his first shooting at the W. J. R. C. Matches at Camp Perry last year. Dan Taylor, of Toledo, Ohio, was second with a score of 186, and defeated his older brother, Thad, by one point.

Class C was won by Neal Richmond, of Northfield, Vermont, who shot a score of 97 out of a possible 100. Neal, who is the son of Captain Richmond, Adjutant of the Camp, burnt his first gun powder at Camp Perry this year. Jack Critchfield, the son of Colonel Critchfield, won second place with a score of 95. Betty Harvey tied him for second place with a score of 95, but Jack had three more A's than Betty. The consecutive "A" Bull's-eye Match was won by Luther S. Moore, of Newtonville, Mass., who shot a remarkable score of 106 consecutive A's. John Heiss, of West Lafayette, Ind., was second with 51 to his credit. Arthur Falter had 47, and Orrin Rutledge 45.

On each afternoon a novelty match was conducted and the following are the winners: Ball Breaking Contest, open to Class C members only, won by Winchester Richards of New Haven, who broke fifteen consecutive balls. Bradford Wiles, of Chicago, who is nine years of age and the youngest boy in America to win the Expert Rifleman title of the W. J. R. C., won second place with eleven. The Lucky Shot Contest was won by Raymond Blanchard with a score of 165 out of a possible 170. Donald Wooley, of Annapolis, Md., was second with 125 and Wm. Mahin of West Lafayette, Ind., was third. The Crayon Contest was won by Arthur Falter, who broke fourteen crayons. Richard Kennedy of West Lafayette had eleven, and Wm. Smith of Erie, Pa., and Orrin Rutledge of Pa., were tied for third place with eight to their credit. The "Pupil in the Bull's-eye" Match, a Class A event, was won by Christopher Dryer, Cranford, N. J. Dan Taylor of Toledo was second and Orrin Rutledge, N. H., third. The Class C event was won by Christopher Markham of Ypsilanti, Michigan. Winchester Richards of New Haven was second, and Bradford Wiles, of Chicago, third. The Big Game Shoot, Class A, was won by Orrin Rutledge of New Haven; Chris Dryer, second, and Dan Taylor, third. Class B was won by Bradford Wiles, and Chris Markham was second. Frank Strong, of Washington, D. C., was winner of Class C, Phillis Sargent, of San Juan, Porto Rico, second, and Lowell Fletcher, seven years old, third. The "Rapid Rabbit Race," Class A, which is a match shot against time, was won by Blanchard of Evanston, who went to the backstop and, with the target in his teeth, placed it and returned in the same fashion and shot a score of twenty-five out of a possible twenty-five in one minute and seven seconds. Chester Nikodyn, Cleveland, was second with a score of twenty-three in one minute and fifty-five seconds, and Rutledge was third with a score of twenty-three in two minutes. Class B was won by Bradford Wiles with a score of twenty-four out of a possible twenty-five in two minutes and seven seconds. Katharine Tadsen, of Port Clinton, was second, and Phyllis Sargent of Porto Rico, third.

Each day the high average man was presented with an annual membership in the National Rifle Association. If he won more than once, a subscription to *THE AMERICAN RIFLEMAN* was the prize. Luther Moore, Newtonville, Mass, made 150 possibles in the first two days. Chester Nikodyn, Cleveland, made a possible of 150 on the third day and also on the fifth day. John Heiss shot a score of 197 out of a possible 200 on the fourth day and on the sixth day Harry Renshaw of Nogales, Arizona shot a score of 98 out of a possible 200.

The National Matches were in charge of B. M. Russell, National Executive, W. J. R. C., and the camp and range was in charge of Captain W. S. Eley, Commander of the R. O. T. C., at the University of Pennsylvania. Mr. H. H. Goebel, national secretary of the W. J. R. C. was the official secretary.

The States of Ohio, Indiana, Massachusetts, Arizona, New York, Iowa, New Jersey, Pennsylvania, Michigan, Connecticut, Vermont, Illinois, Maryland, District of Columbia, and Porto Rico were represented at the camp. Sixteen girls took part and there was an increase of twenty-four members in attendance over last year. Weather conditions were very good and with the instruction and attainments each day, the 1924 Junior Matches were a decided success.

Friday, September 5th

Friday was a big day. The Western Unit of the Camp under the leadership of Russell Wiles, Jr., of Chicago, defeated the Eastern Team under Luther Moore by the score of 250 to 246. Each of the five received a fine pocket flashlight, the prizes being presented to the boys by Colonel Mumma. A shooting exhibition was given on this day by Virgil and Captain Richard.

Saturday, September 6th

On Saturday morning the Inter-City National Championship was shot. Chris Dreyer of Cranford, N. J., won first place with a score of 381 out of a possible 400 in four positions. Moore, of Newtonville was second with 380, and Rutledge third with 375. The winner was presented with a handsome solid gold medal by the National Rifle Association.

Setting the Pace at Sea Girt

(Continued from Page 8)

is an exception to every rule, Captains Ashurst and Jackson of the Marine Corps went through the course of ten shots each at 600 and 1,000 yards with a total of 198, each dropped one point. It seems to us that this is also a record for the match.

Thursday saw the Swiss Match, always an interesting competition, start the day at 500 yards. In this match a shooter is through just as soon as he goes out of the bull's-eye. Marine Gunner Faragher had a run of eleven bulls plus two and won the coveted Swiss watch for 1924.

The All Comers Short Range Match was won by Clary and Wiggs of the Marines. This match, by the way, needs a V target to elimin-

ate the ties which spoil an otherwise good match.

The All Comers Mid Range was won by Lieutenant Scheets of the Infantry with a hundred plus 23.

The Libbey was won by Lieutenant Presmell of the Marines with a 74 at 1,100 yards—not so bad. And the Spencer, perhaps the best long range in the country, excepting the Wimbledon at Perry, went to Lieutenant Conover of the Infantry who out-Creedmoored Sergeant Coulter of the Marine Corps on a 73.

Friday was given over entirely to the Sea Girt Championship and this also went to a Marine, Private Seitzinger, with a 189 across the range as the match calls for ten shots at 200, 600, 900 and 1,000 yards.

The tenth, and last day, Saturday, only

three matches were scheduled, the Eisner, Gould, and Redding. The Gould, a rapid fire competition at 200 and 300 yards went to Sergeant Ravadeura of the Infantry whose 99 dropped Marine Gunner Lloyd in second place with a 98. The Eisner went to Sergeant Clary of the Marines. His total was 94 for ten shots standing and kneeling at 200 yards. The Redding gave the Tyros a chance for here all others were eliminated. Corporal Burnham proved himself a real Tiro by scoring a possible and ten extra bull's, though he was closely pushed by Sergeant Nakala of the Infantry with a possible and eight bull's.

And so, the thirty-first annual Sea Girt Tournament came to a successful close after ten days of the most strenuous kind of competition.

Official Scores of the 31st Annual Tournament Sea Girt, New Jersey, 1924

ALL COMERS' EXPERT MATCH

(74 Entries)

Name	Prize	Score
1. 1st Sgt. T. J. Jones, USMC	\$6.16	50
Cpl. H. M. Heller, USMC	do.	
Sgt. M. A. Navadsky, Inf.	do.	
4. Cpl. G. F. Sharp, USMC	1.95	49
M. T. Broderick, Inf.	do.	
Capt. J. Jackson, USMC	do.	
Capt. J. Lienhard, USMC	do.	
1st Lieut. M. T. Shively, USMC	1.94	49
Cpl. C. L. Curtis, N. J. NG	do.	
Capt. Frank Gimmell, 5th Inf. Md.	do.	
Lieut. C. P. Crisp, USMC	do.	
National Guard or Reserve Officers		
8. Cpl. M. W. Dodson, 11th Pa. NG	5.55	48
Pvt. W. W. Hedden, N. J. NG	do.	
10. Capt. H. W. Bodine, N. J. NG	2.22	47
Sgt. A. C. Turner, 5th Inf. Md.	do.	
M. Sgt. J. E. Given, 5th Inf. Md.	do.	
Civilians		
12. M. J. Kerrigan, Brooklyn, N. Y.	7.40	48
13. C. W. Vickers, Brooklyn, N. Y.	3.70	47
14. A. A. Fisher, EORC	3.70	46
15. M. W. Sargent, EORC	2.96	40

ALL COMERS' MATCH

1. Gy. Sgt. R. E. Clary, USMC	\$6.12	10
Mar. Gun. O. Wiggs, USMC	6.12	10
Capt. J. Lienhard, USMC	1.90	9
Pvt. R. T. Seitzinger, USMC	1.90	9
Lt. A. K. Robinson, U. S. Inf.	1.90	9
Sgt. T. J. Jones, USMC	1.90	9
Sgt. W. F. Pulver, USMC	1.90	9
3. Lt. P. E. Conradt, USMC	1.90	9
Lt. S. R. Hinds, U. S. Inf.	1.90	9
Lt. R. E. Vermette, U. S. Inf.	1.90	9
Cpl. H. L. Nason, USMC	1.90	9
Cpl. E. Wilson, USMC	1.90	9
National Guard or Reserve Officers		
8. Capt. S. Roebeling, N. J. NG	\$4.53	7
Bugler Sykes, N. J. NG	4.53	7
Sgt. George Burke, N. J. NG	4.53	7
11. Sgt. Gilbert Shivers, N. J. NG	2.72	6
Civilians		
12. C. H. Johnson, Up. Darby, Pa.	\$6.80	2

BOLE TROPHY MATCH

(23 Entries)

Name	Prize	Score
1. E. S. Beardsley, 71st Regt. R. C.	Trophy	47
2. R. H. Lums, 71st Regt. R. C.	\$4.00	46
3. Capt. H. L. Bryan, Old Guard, N. Y.	2.50	45
4. M. W. Dodson, Kingston, N. Y.	1.50	44
5. M. J. Kerrigan, 13th Regt. R. C.	1.00	41
6. W. E. Toole, 71st Regt. Vet.	1.00	41

EISNER MATCH

(48 Entries)

Name	Stand.	Kneel.	T'tl
1. Gy. Sgt. B. E. Clary, USMC	46	48	94
2. Capt. W. W. Ashurst, USMC	44	49	93
3. Capt. A. M. Stephenson	44	49	93

PRIZE to each of above, a uniform.

GOULD INDIVIDUAL RAPID FIRE MATCH

Prize 200 300 T'tl

1. Sgt. J. Ravadeura, U. S. Inf.	\$6.40	50	49	99
2. Mar. Gun. C. A. Lloyd, M. C.	5.12	49	49	98
3. Lt. R. R. Street, U. S. Inf.	4.16	50	48	98
Gy. Sgt. R. O. Coulter, M. C.	4.16	50	48	98
5. Cpl. E. Wilson, M. C.	3.20	49	48	97
6. Lt. A. K. Robinson, U. S. Inf.	3.20	48	48	96
7. Cpl. H. M. Heller, M. C.	1.07	49	47	96
Sgt. J. Blakley, M. C.	1.07	49	47	96
Mar. Gun. O. Wiggs, M. C.	1.07	49	47	96
National Guard or Reserve Officers				
8. Bugler, H. L. Sykes, N. J. NG	6.40	45	46	91
9. Cpl. Geo. Smith, N. J. NG	3.20	41	43	83
10. Cpl. C. L. Curtis, N. J. NG	3.20	39	40	79
11. Sgt. Geo. Desurney, N. J. NG	2.56	40	37	77

SPENCER MATCH (1,200 Yards)

(60 Entries)

1. 1st Lt. W. C. Conover, U. S. Inf.	73
Prizes, \$9.00 and medal.	
2. Gy. Sgt. R. O. Coulter, USMC	\$7.20 73
3. Sgt. E. J. Blade, USMC	6.30 72
4. R. H. Betts, Glenside, Pa.	5.40 71
5. Gy. Sgt. C. R. Nordstrom, USMC	4.50 71
6. Lt. C. F. Crisp, USMC	4.50 69
7. Pvt. B. Franson, USMC	4.50 69
National Guard or Reserve Officers	
8. Cpl. M. W. Dodson, Pa. NG	\$9.00 67
9. Bugler H. L. Sykes, N. J. NG	4.50 55
10. Cpl. George Smith, N. J. NG	4.50 54
11. Capt. S. Roebeling, N. J. NG	3.60 53
Civilians	
12. A. A. Fisher, E. O. RC	\$9.00 57
13. W. W. Sargent, E. O. RC	4.50 57
14. C. H. Johnson, Upper Darby, Pa.	4.50 51

ALL COMERS' MID-RANGE MATCH

(67 Entries)

1. Lt. H. B. Sheets, U. S. Inf.	23 bulls	100
Prize, \$6.70		
2. Cpl. E. Feury, USMC	7 bulls	100
Prize, \$5.36		
3. Lt. R. E. Vermette, U. S. Inf.	6 bulls	100
Prize, \$4.69		
4. Mar. Gun. C. A. Lloyd, USMC	5 bulls	100
Prize, \$4.02		
5. Capt. J. Lienhard, USMC	3 bulls	100
Prize, \$3.35		
6. 1st Lt. M. T. Shively, USMC	\$3.35	99
7. Sgt. Maj. L. P. Cartier, USMC	3.35	99
National Guard or Reserve Officers		
8. Sgt. G. Burke, N. J. NG	\$6.70	94
9. Sgt. G. Shivers, N. J. NG	3.35	94
10. M. W. Dodson, Pa. NG	3.35	94
11. Cpl. R. Smith, N. J. NG	2.68	92
Civilians		
12. A. A. Fisher, E. O. RC	\$6.70	93
13. W. W. Sargent, E. O. RC	3.35	90
14. R. H. Betts, Glenside, Pa.	3.35	90
15. C. H. Johnson, Up. Darby, Pa.	2.68	89

MEMBERS MATCH

(56 Entries)

Name	Prize
Capt. C. W. Vickers, Brooklyn, N. Y. N.R.A. Medal	

SEA GIRT CHAMPIONSHIP

(60 Entries)

Name	200	600	900	1000	T'tl	Prize
1. Pvt. Seitzinger	44	50	50	45	189	\$9.00
Medal						
2. Cpl. Stephenson	43	48	50	56	187	7.20
3. Capt. Lienhard	45	50	50	42	187	6.30
4. Lieut. Hinds	49	48	50	40	187	5.40
5. Cpl. Heller	45	49	50	42	186	4.50
6. Lieut. Vermette	46	48	50	42	186	4.50
7. Cpl. Combs	47	50	50	39	186	4.50
National Guard or Reserve Officers						
8. Cpl. Smith	44	48	47	38	177	9.00
9. Pvt. McKensie	40	44	43	36	163	4.50
10. Sgt. Shivers	38	45	46	31	160	4.50
11. Capt. Bodine	41	42	45	31	159	3.60
Civilians						
12. Fisher	38	47	47	39	171	9.00
13. Sargent	37	44	47	29	157	4.50

READING TYRO MATCH

1. Cpl. G. Burnham, U. S. Inf.	10 bulls	50
Prizes, \$1.10 and medal.		
2. Sgt. C. Kakala, U. S. Inf.	8 bulls	50
Prize, \$.83		
3. Capt. C. H. Karistad, U. S. Inf.	\$.77	49
4. Sgt. M. A. Zavadeky, U. S. Inf.	.66	49
5. Capt. J. W. Thompson, U. S. Inf.	.55	49
Sgt. J. E. Jaynes, U. S. Inf.	.55	49
7. Capt. John W. O'Daniel, U. S. Inf.	.55	48
National Guard or Reserve Officers		
8. Pvt. McKenzie, N. J. NG	\$1.10	46
9. Capt. C. Tumulty, N. J. NG	.55	45
10. Sgt. M. Burke, N. J. NG	.55	44
11. Capt. H. Schroeder, N. J. NG	.44	44
Civilians		
12. M. W. Sargent, E. O. RC	\$1.10	47
13. Chas. Vickers, Brooklyn, N. Y.	.55	46
14. A. A. Fisher, E. O. RC	.55	44

LIBBEY MATCH (1,100 Yards)

1. 1st Lt. R. T. Presnell, USMC	74
Prize, \$9.00 and trophy medal.	
2. Cpl. J. Combs, USMC	\$7.20 74
3. Capt. W. W. Ashurst, USMC	6.30 73
4. Mar. Gun. O. Wiggs, USMC	5.40 73
5. 1st Lt. R. E. Vermette, U. S. Inf.	4.50 71
6. Cpl. R. Workman, USMC	4.50 71
7. Cpl. H. M. Heller, USMC	4.50 71
National Guard or Reserve Officers	
8. Cpl. M. W. Dodson, Pa. NG	\$9.00 69
9. Cpl. C. L. Curtis, N. J. NG	4.50 64
10. Sgt. Gilbert Shivers, N. J. NG	4.50 64
11. Cpl. George Smith, N. J. NG	3.60 60
Civilians	
12. C. H. Johnson, Up. Darby, Pa.	\$9.00 70
13. R. H. Betts, Glenside, Pa.	4.50 68
14. A. A. Fisher, E. O. RC	4.50 64
15. W. W. Sargent, E. O. RC	3.60 60

SMALL BORE COMPETITORS

1. G. L. Schenck, 206 Broad St., Elizabeth, N. J.	Unattached	Win.	US.
2. Geo. Demeter, 372 East 167 St., New York City	Yonkers RC	Spgfd.	US
3. L. J. Cora, 4020 Ferris St., Woodhaven, N. Y.	BSA	Palma	
4. M. W. Dodson, 28 Park Pl., Kingston, N. Y.	Co.H.111 Inf.	Win.	Palma
5. G. B. Sheldon, 6 Harrison St., Poughkeepsie, N. Y.	Poughkeepsie	Peterson	Palma
6. Paul Mackey, 157 South Ave., Poughkeepsie, N. Y.	Poughkeepsie	BSA	Palma
7. Wm. A. Mackey, 137 South Ave., Poughkeepsie, N. Y.	Poughkeepsie	Spgfd.	Win.
8. J. E. Terry, Klein & Co., Williamsport, Pa.	P. Ara. RC	Win.	Win.
9. O. P. Wood, 340 Madison Ave., N. Y. City	Yonkers RC	BSA	
10. Virgil Richard, 635 Liberty Ave., Pittsburgh, Pa.	Unattached	Win.	Win.
11. R. H. Betts, 222 Pickley Ave., Glenstone, Pa.	Fr. Ara. RC	Win.	Win.
12. Chas. H. Johnson, 28 Keystone Ave., Upper Darby, Pa.	Fr. Ara. RC	Pope Bal.	
13. C. S. Neary, 303 Judson Ave., Bridgeport, Conn.	Remington	Rem.	Palma
14. A. C. Russell, 227 King St., Stratford, Conn.	Remington	Win.	Palma
15. Jas. E. Murray, 190 Marlborough Rd., Brooklyn, N. Y.	Roosevelt	PopeWin	Palma
16. Fred Kuhn, Hair St., Stratford, Conn.	Remington	Rem.	Palma
17. W. Kelsey, Tarrytown, N. Y.	Roosevelt	Spgfd.	US
18. H. J. Wood, 574 Wood Ave., Bridgeport, Conn.	Remington	Rem.	Palma
19. H. S. Woodruff, 28 Rhode Is. Ave., East Orange, N. J.	EORC	Stevens	Palma
20. D. D. Hoag, Tenady, N. J.	Tenady	Win.	Palma
21. Stewart Dick, 300 No. Walnut St., East Orange, N. J.	EORC	Savage	Palma
22. James Reddig, 26 Lincoln St., East Orange, N. J.	EORC	Win.	Palma
23. L. J. Miller, 1951 Broad St. No. 1, Phila., Pa.	Fr. Ara. RC	Win.	Win.
24. J. W. Gillies, 80 West 40th St., New York City	Roosevelt	Peterson	
25. Morton Solomon, 313 Corlies Ave., Allenhurst, N. J.	Win.	US	
26. F. W. Kilbourn, RFD No. 3, New Brunswick, N. J.	Clifton RC	Stevens	US
27. J. A. Willners, 1502 Locust St., Phila., Pa.	Fr. Ara. RC	Win.	Palma
28. N. G. Stabler, 1319 Lehigh Ave., Philadelphia, Pa.	Fr. Ara. RC	Spgfd.	Palma
29. Norris M. Terwilliger, 9 Kirkpatrick St., New Brunswick, N. J.	Clifton RC	Win.	US
30. Duncan Bettison, 227 Seaman St., New Brunswick, N. J.	Clifton RC	Spgfd.	US
31. S. M. Milman, 1231 Lincoln Pl., Brooklyn, N. Y.	Brooklyn RC	Peterson	Palma
32. Floyd T. Oswald, New Tripoli, Pa.	Bear Rock	Win.	Palma
33. Wilmer F. Smith, Jordan, Pa.	Bear Rock	Win.	Win.
34. Victor G. Rauch, Jordan, Pa.	Bear Rock	Win.	Win.
35. Albert B. Handwerk, Germantown, Pa.	Bear Rock	Win.	Win.
36. Geo. H. Sittler, Germantown, Pa.	Bear Rock	Win.	Palma
37. Edgar B. Hamm, Germantown, Pa.	Bear Rock	Win.	Palma
38. Wm. E. Weiss, Germantown, Pa.	Bear Rock	Win.	Win.
39. Geo. C. Hamm, Germantown, Pa.	Bear Rock	Win.	Win.
40. Paul G. Peter, New Tripoli, Pa.	Bear Rock	Win.	US
41. Chas. H. German, Germantown, Pa.	Bear Rock	Spgfd.	Palma
42. C. P. Fetherolf, Wannamaker, Pa.	Bear Rock	Win.	Palma
43. Earl E. Handwerk, Germantown, Pa.	Bear Rock	Win.	Win.
44. Clarence C. Held, Allentown, Pa.	Bear Rock	Win.	Palma
45. Frank R. Ulmar, 31 W. 40th St., Bayonne, N. J.	Bayonne RC	Win.	US
46. Arthur Carkeek, 28 E. 42nd St., Bayonne, N. J.	Bayonne RC	Win.	US
47. Clifford Ruhfahl, Co. B, 114 Inf., Chas. Pfister, Co. B, 114 Inf.	Graylock	Spgfd.	Palma
48. Dr. R. D. Wilber, 155 E. 51st., New York City	Roosevelt	Peterson	Win.
49. Thos. R. Hassall, 261 Fenimore St., Brooklyn, N. Y.	Roosevelt	BSA	Win.
50. Chas. R. Strong, Rosemont Ave., Ardmore, Pa.	Fr. Ara. RC	Spgfd.	US
51. J. M. Sorenson, 173 Brighton Ave., Perth Amboy, N. J.	P. A. RC	BSA	Win.
52. Carl Omerle, 407 Sayre Ave., Perth Amboy, N. J.	P. A. RC	Win.	Win.
53. Stuart Scott, 43 Exchange Pl., New York City	Peterson	Win.	Win.
54. W. H. Dewar, 22 Union Ave., Belleville, N. J.	Bellev. RC	Win.	Win.
55. J. S. Osborne, 164 Union Ave., Belleville, N. J.	Bellev. RC	BSA	Palma
56. R. M. Struble, 361 Graylock, Belleville, N. J.	Bellev. RC	Savage	US
57. C. W. Allen, 200 Hornblow, Belleville, N. J.	Bellev. RC	Savage	US

N. J. NG LONG DISTANCE MATCH

Bulletin No. 27. Match No. 34. September 1, 1924.	800 yds. 1000 yds. Total
1. Corp. G. Smith, N. J. NG.	50 46 96
2. Cpl. Curtis N. J. NG.	45 46 94
3. Sgt. Burke, N. J. NG.	49 45 94
4. Capt. Roebbing, N. J. NG.	42 50 92
5. Pvt. Hedden, N. J. NG.	49 43 92
6. Capt. Bodine, N. J. NG.	50 40 90
7. Bugler Sykes, N. J. NG.	40 50 90
8. A. A. Fisher, EORC.	49 40 89
9. Capt. M. W. Hutteloch, N. J. NG.	50 39 89
10. Sgt. Shivers, N. J. NG.	44 44 88
11. James B. Reddig, EORC.	41 43 84

N. J. NG REGIMENTAL TEAM MATCH (TYRO)

Bulletin No. 26. Match No. 31. September 1, 1924.	Score	V's	Price
1. 102nd Cavalry.	200 300 500 600 200R 300R 500R Total		
1. Troop B. 102nd Cal.	188 218 236 237 241 243 212 1573		
2. Co. A. 113th Inf.	170 177 211 197 198 193 141 1287		
3. Co. B. 113th Inf.	170 171 180 164 177 164 178 1204		
4. Co. B. 114th Inf.	173 157 179 167 171 176 147 1175		
5. Hq. Co. 2nd Bn. 113th Inf.	115 191 181 160 171 172 92 1112		
6. Co. L. 113th Inf.	132 137 166 162 142 162 125 1028		
7. Co. G. 114th Inf.	152 186 132 204 191 119 1004		
8. Co. K. 113th Inf.	129 163 120 139 116 131 95 893		

N. J. NG REGIMENTAL TEAM MATCH

Bulletin No. 24. Match No. 30. September 1, 1924.	Score	V's	Price
1. 102nd Cal.	330 355 353 351 368 367 321 2475		
2. 113th Inf.	297 302 333 328 321 323 241 2143		
3. 114th Inf.	276 288 307 298 344 336 263 2110		

LONG RANGE RE-ENTRY MATCH

Bulletin No. 23. Match No. 44. September 1, 1924.	Score	V's	Price
1. Stuart Scott.	50 7		\$10.50
2. L. J. Cora.	50 7		8.55
3. George Demeter.	50 6		6.41
4. J. W. Gillies.	50 5		4.27
5. Fred Kuhn.	50 5		2.13

MID RANGE RE-ENTRY MATCH

Bulletin No. 22. Match No. 43. September 1, 1924.	Score	V's	Price
1. H. J. Wood.	100 7		\$4.50
2. L. J. Miller.	100 7		3.62
3. Wm. A. Mackey.	100 3		2.62
4. J. W. Gillies.	100 1		1.31

SHORT RANGE RE-ENTRY MATCH

Bulletin No. 21. Match No. 42. September 1, 1924.	Score	V's	Price
1. L. D. Miller.	100 10		\$6.20
2. J. A. Willners.	100 7		4.65
3. Chas. H. Johnson.	100 6		2.32
4. W. Kelsey.	100 6		

NEVADA TROPHY MATCH

Bulletin No. 29. Match No. 2. September 2, 1924.	Score	V's	Price
1. Sgt. Maj. L. P. Cartier USMC.	600 900 1,200 Total		\$15.75
2. Lt. R. T. Preamell, MC.	49 49 48 146		12.60
3. Sgt. E. J. Blake, MC.	50 49 46 145		11.02
4. Capt. J. Lionhard, MC.	50 46 48 144		9.45
5. 1st Sgt. P. F. Mollerstrom, US Inf.	48 48 47 143		7.88
6. Cpl. G. L. Sharp, MC.	48 48 45 142		7.86
7. Capt. J. Jackson, MC.	50 47 44 141		7.88

NATIONAL GUARD OR RESERVE OFFICERS

8. Bugler, H. L. Sykes, N. J. NG.	50 47 38 135		\$15.75
9. Cpl. George Smith, N. J. NG.	44 42 43 129		7.88
10. Cpl. C. L. Curtis, N. J. NG.	44 45 39 128		7.88
11. M. W. Dodson, 111th Inf., Pa. NG.	49 49 29 127		6.30

CIVILIANS

12. M. W. Sargeant, East Orange RC.	48 48 35 131		\$15.75
13. Arthur A. Fisher, East Orange RC.	41 49 37 127		7.88
14. H. S. Woodruff, East Orange RC.	45 45 25 115		7.88
15.			

INDIVIDUAL SMALL BORE DRYDEN

Bulletin No. 18. Match No. 40. September 1, 1924.	150 175 200 Total	Price
1. George Demeter.	75 75 75 225	\$4.10 & Medal
2. A. C. Russell.	75 74 75 224	3.07 & Medal
3. Clarence Held.	74 74 75 223	2.05 & Medal
4. L. J. Miller.	75 73 75 223	1.44
5. H. J. Wood.	75 73 73 221	1.44
6. G. L. Schenck.	75 75 74 222	1.02
7. M. W. Dodson.	75 74 74 222	1.02
8. H. D. Wilber.	75 73 74 222	1.02
9. Thos. R. Hassall.	75 74 73 222	1.02
10. J. A. Willners.	75 73 73 221	.62
11. Stuart Scott.	75 74 72 221	.62
12. Earl E. Handwerk.	75 75 71 221	.62
13. C. S. Neary.	74 74 72 220	.62
14. W. A. Mackey.	75 74 71 220	.62
15. Geo. Sittler.	75 71 75 219	.41
16. Virgil Richard.	74 72 73 219	.41
17. J. W. Gillies.	73 74 72 219	.41
18. Fred Kuhn.	73 74 72 219	.41
19. Albert Handwerk.	74 74 71 219	.41
20. Jas. E. Terry.	75 74 70 219	.41
21. G. B. Sheldon.	74 72 73 218	.41
22. N. G. Stabler.	74 75 69 219	.41
23. R. H. Betts.	72 71 74 217	.41
24. C. P. Fetherolf.	73 73 71 217	.41
25. Chas. R. Strong.	74 72 71 217	.41
26. L. J. Cora.	73 71 72 216	.41
27. Chas. H. Johnson.	74 74 68 216	.41
28. Chas. H. German.	70 72 73 215	.41
29. Wm. E. Weiss.	70 72 73 215	.41
30. J. E. Murray.	73 71 75 219	.41
31. D. D. Hoag.	68 73 73 214	.41
32. Paul G. Peter.	72 69 73 214	.41
33. O. P. Wood.	74 69 69 209	.41
34. Morton Solomon.	73 70 66 209	.41
35. S. M. Milman.	74 70 64 208	.41
36. Paul Mackey.	72 69 65 206	.41
37. Floyd T. Oswald.	64 70 70 204	.41
38. Edgar Hamm.	67 74 61 201	.41
39. Wilmer F. Smith.	64 69 66 199	.41
40. Victor G. Rauch.	64 65 68 197	.41
41. George Hamm.	51 60 60 180	.41

EISNER ONE HUNDRED YARD MATCH

Bulletin No. 17. Match No. 36. August 31, 1924. 49 Entries.	Score	V's	Price
1. D. D. Hoag.	98 6		\$4.90
2. H. J. Wood.	98 4		3.67
3. C. S. Neary.	98 2		2.45
4. Albert Handwerk.	97 3		1.72
5. J. A. Willners.	97 2		1.47
6. George Demeter.	96 4		1.35
7. W. Kelsey.	96 4		1.35
8. H. D. Wilber.	96 3		1.22
9. W. A. Mackey.	96 3		1.22
10. Thos. R. Hassall.	96 2		.74
11. H. S. Woodruff.	96 1		.74
12. M. W. Dodson.	95 3		.73
13. S. M. Milman.	95 3		.73
14. Stuart Scott.	95 2		.60
15. J. M. Sorenson.	95 2		.60
16. A. C. Russell.	95 1		.49
17. Paul G. Peter.	95 1		.49
18. R. H. Betts.	94 1		.49
19. J. W. Gillies.	94 1		.49
20. Duncan Bettison.	94 1		.49
21. W. E. Weiss.	94 1		.49
22. Geo. H. Sittler.	94 1		.49
23. Virgil Richard.	94 1		.49
24. Clarence Held.	93 1		.49
25. G. B. Sheldon.	93 1		.49
26. L. J. Cora.	93 1		.49
27. C. P. Fetherolf.	93 1		.49
28. J. E. Terry.	93 1		.49
29. Chas. N. German.	93 1		.49
30. N. G. Stabler.	93 1		.49
31. Floyd T. Oswald.	93 1		.49
32. H. M. Terwilliger.	92 1		.49
33. Fred Kuhn.	92 1		.49
34. H. E. Handcock.	91 1		.49
35. Chas. R. Strong.	91 1		.49
36. Carl Omerle.	91 1		.49
37. G. L. Schenck.	91 1		.49
38. O. P. Wood.	90 1		.49
39. Victor G. Rauch.	89 1		.49
40. G. C. Hann.	89 1		.49
41. J. E. Murray.	89 1		.49
42. Morton Solomon.	88 1		.49
43. L. J. Miller.	88 1		.49
44. Chas. H. Johnson.	88 1		.49
45. Wilmer F. Smith.	87 1		.49
46. Paul Mackey.	86 1		.49
47. E. B. Hamm.	82 1		.49
48. F. W. Kilbourn.	82 1		.49

N. R. A. SMALL BORE MATCH

Bulletin No. 16. Match No. 37. August 31, 1924. 33 Entries.	Score	V's	Price
1. Paul G. Peter.	98 3		\$3.30
2. J. E. Murray.	97 1		2.47
3. G. B. Sheldon.	97 1		1.65
4. O. P. Fetherolf.	96 4		1.16
5. Chas. R. Strong.	96 3		1.15
6. Clarence C. Held.	96 1		.83
7. Wm. A. Mackey.	95 3		.82
8. Wm. M. Dodson.	95 2		.82
9. Geo. Demeter.	95 2		.82
10. L. J. Cora.	95 1		.50
11. J. E. Terry.	94 5		.50
12. Wilmer F. Smith.	94 3		.49
13. E. E. Handwerk.	94 3		.49
14. N. G. Stabler.	94 2		.41
15. Geo. H. Sittler.	94 2		.41
16. Virgil Richard.	94 1		.34
17. J. A. Willners.	93 3		.33
18. Albert Handwerk.	92 1		.33
19. G. L. Schenck.	92 1		.33
20. Victor G. Rauch.	91 1		.33
21. R. H. Betts.	91 1		.33
22. Chas. H. German.	90 1		.33
23. Morton Solomon.	89 1		.33
24. Floyd T. Oswald.	89 1		.33
25. S. M. Milman.	88 1		.33
26. Chas. H. Johnson.	88 1		.33
27. W. E. Weiss.	86 1		.33
28. Geo. C. Hamm.	83 1		.33
29. L. J. Miller.	83 1		.33
30. C. Kuhlfiel.	83 1		.33
31. J. M. Sorenson.	83 1		.33
32. Chas. Pfister.	72 1		.33
33. Edgar B. Hamm.	Did not shoot.		

TWO MAN MATCH TEAM

Bulletin No. 31. Match No. 9. September 3, 1924. 37 entries	Score	V's	Price
1. Capt. W. W. Ashurst USMC.	600 1000 Total		\$50.00
2. Capt. J. Jackson USMC.	59 50		198
3. Sgt. G. Shivers N. J. NG.	43 47		185
4. Cpl. F. Fauch.	47 48		185</

SWISS MATCH

Bulletin No. 32. Match No. 15. September 4, 1924.

	Score	Prize
1. Mar. Gun. J. J. Faragher.....USMC	11 Bulls+2	\$5.00 & watch
2. Lieut. R. T. Fremont.....USMC	11 Bulls+1	4.00 & medal
3. Cpl. A. M. Stephenson.....USMC	9 Bulls	3.50
4. Cpl. R. R. Workman.....USMC	8 Bulls	2.66
5. Capt. W. W. Ashurst.....USMC	6 Bulls	2.66
6. Pvt. B. Franson.....USMC	6 Bulls	2.66
7. Lieut. C. F. Crisp.....USMC	5 Bulls	2.50

NATIONAL GUARD OR RESERVE OFFICERS

8. Bugler H. L. Sykes.....N. J. NG	3 Bulls	\$5.00
9. Cpl. M. W. Dodson.....Pa. NG	1 Four	2.50
11.....		

CIVILIANS

12. A. A. Fisher.....EORC	4 Bulls	\$5.00
13. R. H. Betts.....Gl'nide, Pa.	1 Bull	2.50
14. C. H. Johnson.....Up. D. by Pa.	1 Bull	2.50
15.....		

50 Entries

SEA GIRT NATIONAL INDIVIDUAL MATCH

	Score	Prize
1. 2d Lt. P. E. Conrad USMC	45 47 50 48 96	\$28 \$11.10
2. Capt. J. Jackson MC	41 49 46 50 98	284 8.88
3. 1st Lt. L. V. Jones, US Inf.	44 49 47 49 95	284 7.77
4. Cpl. E. Wilson, MC	42 49 46 48 95	283 6.66
5. Cpl. E. Feury, MC	43 47 46 50 97	283 5.55
6. Mar. Gun. J. J. Andrews, MC	40 47 46 48 95	279 5.55
7. Gy. Sgt. B. E. Clary, MC	46 46 47 49 91	279 5.55

NATIONAL GUARD OR RESERVE OFFICERS

8. Cpl. M. W. Dodson, Pa. NG	38 45 42 48 96	269 11.10
9. Bugler H. L. Sykes, N. J. NG	40 46 47 43 95	261 5.55
10. Cpl. C. L. Curtis, N. J. NG	36 43 44 46 89	257 5.55
11. Sgt. Gilbert Shivers, N. J. NG	34 46 37 42 91	250 4.44

CIVILIANS

12. A. A. Fisher, EORC	31 38 36 39 91	235 11.10
13. M. W. Sargent, EORC	32 41 31 43 87	234 5.55

SEA GIRT SMALL BOAT CHAMPIONSHIP

	Score	Prize
1. J. W. Gillies.....	100 98 50 248	\$4.00 Medal
2. R. H. Betts.....	100 97 48 245	3.00 Medal
3. J. A. Willers.....	98 97 49 244	2.00 Medal
4. L. J. Miller.....	96 100 48 244	1.40
5. H. J. Wood.....	97 97 49 243	1.40
6. Clarence Held.....	98 97 48 243	1.00
7. M. W. Dodson.....	96 94 49 241	1.00
8. Virgil Richard.....	99 95 47 241	1.00
9. Fred Kuhn.....	96 98 48 240	1.00
10. Dr. H. D. Wilber.....	96 98 45 239	.60
11. James E. Terry.....	98 99 42 239	.60
12. Chas. H. Johnson.....	97 94 47 238	.60
13. Thos. R. Hassall.....	99 97 42 238	.60
14. Geo. L. Schenck.....	93 96 48 237	.60
15. Geo. Demeter.....	96 94 49 237	.40
16. G. B. Sheldon.....	97 93 47 237	.40
17. S. M. Milman.....	95 96 45 236	.40
18. N. G. Stabler.....	99 92 45 236	
19. C. S. Neary.....	97 97 42 236	
20. C. P. Fetherolf.....	95 93 47 235	
21. D. D. Hoag.....	94 96 44 234	
22. A. C. Russell.....	92 94 47 233	
23. E. E. Handwork.....	93 93 47 233	
24. Paul Mackey.....	95 95 43 233	
25. A. D. Handwork.....	96 94 43 233	
26. Paul G. Peter.....	97 99 36 232	
27. Chas. H. German.....	91 91 49 231	
28. L. J. Coran.....	91 93 47 231	
29. Morton Solomon.....	96 90 45 231	
30. G. H. Sittler.....	92 96 41 230	
31. Stuart Scott.....	95 94 40 229	
32. Wm. A. Mackey.....	97 85 46 228	
33. Wm. E. Weiss.....	93 95 39 227	
34. Floyd Oswald.....	95 83 46 224	
35. Victor G. Rauch.....	88 90 45 223	
36. Wilmer F. Smith.....	81 96 44 221	
37. James E. Murray.....	85 92 37 214	
38. E. B. Hamm.....	83 99 32 214	
39. G. C. Hamm.....	87 82 35 204	
40. Chas. R. Strong.....	95 95	190

N. R. A. TEAM CHAMPIONSHIP

	Score	Prize
1. Frankford Arsenal Rifle Club.....	391 378 769	\$3.00 & Medals
2. Bear Rock Rifle Club—1st T.....	379 373 752	4.00 & Medals
3. Bear Rock Rifle Club—2d T.....	377 370 747	3.00 & Medals
4. Bear Rock Rifle Club—3d T.....	368 338 726	2.00

THE HAYES MATCH

Bulletin No. 6. Match 17. August 28 and 29.

	Score	Prize
1. Private R. F. Seitzinger, USMC.....	50 x 31 5's	\$7.50
2. 1st Lt. H. R. Shoen, US Inf.....	50 x 23 5's	6.24
3. Corp'l G. L. Sharp, MC.....	50 x 12 5's	5.46
4. Sgt. C. O. Franzen, MC.....	50 x 10 5's	4.68
5. Pvt. W. W. Hedden, N. J. NG.....	50 x 7 5's	3.90
6. Corp'l H. J. Collins, MC.....	50 x 3 5's	3.90
7. Corp'l S. P. Roberts, MC.....	50 x 2 5's	3.90
National Guard or Reserve Officers		
8. Bugler H. L. Sykes, N. J. NG.....	48	7.80
9. Max Sgt. J. E. Givan, 6th Inf. Md. NG.....	48	3.90
10. Sgt. Gilbert Shivers, N. J. NG.....	47	3.90
11. Cpl. N. W. Dodson, Pa. NG.....	47	3.12
Civilians		
12. M. W. Sargent, East Orange RC.....	47	7.80
13. Arthur A. Fisher, East Orange RC.....	47	3.90
14. M. J. Kerrigan, 13th Regt. RC.....	47	3.90
15. Virgil Richard, Pittsburgh, Pa.....	44	3.12

Entries, 78

NEW JERSEY PISTOL CHAMPIONSHIP MATCH (State)

Bulletin No. 15. Match No. 33. August 31, 1924.

	Score	Prize
1. W. W. Hedden Tr. B. 102d Cav.....	106 247 25 378	\$6.88
2. L. F. Page, Tr. A. 102d Cav.....	111 235 25 371	81.2
3. D. S. Rothrock, Tr. B. 102d Cav.....	109 232 23 364	81.0
4. Chas. Britton, Co. H, 114th Inf.....	89 214 22 325	72.9
5. A. E. Maddock, Co. H, 114th Inf.....	86 209 23 318	72.7
6. Ray Clark, Tr. B., 102d Cav.....	106 199 16 321	68.0
7. G. Van Zandt, Hq. Co. 114th Inf.....	107 169 16 292	64.8
8. C. J. Tumulty, Co. K, 113th Inf.....	82 176 16 274	58.3
9. A. J. Gifford, Co. M, 114th Inf.....	86 155 15 256	56.8
10. W. R. Schroeder, Co. B, 114th Inf.....	79 147 16 242	55.3
11. J. W. Lutz, Co. M, 114th Inf.....	49 175 15 239	50.4
12. J. Meteny, Co. H, 114th Inf.....	57 172 12 241	48.4
13. W. J. Eckert, Co. M, 114th Inf.....	54 130 5 189	34.3

SEA GIRT NATIONAL INDIVIDUAL PISTOL MATCH

Bulletin No. 14. Match No. 28. August 31, 1924.

	Score	Prize
1. Pvt. H. J. Notik USMC.....	80 96 83 269	\$2.90
2. Lt. S. B. Hinds, U. S. Inf.....	85 92 87 264	2.32
3. Pvt. W. J. Herrick USMC.....	79 94 90 263	2.03
4. Lt. R. B. Vermetto, U. S. Inf.....	79 94 89 262	1.74
5. Gy. Sgt. H. H. Bailey, USMC.....	78 94 89 261	1.45
6. Capt. W. A. Hedden, U. S. Inf.....	79 91 90 260	1.45
7. Gy. Sgt. B. G. Belke, MC.....	79 92 89 260	1.45

NATIONAL GUARD OR RESERVE OFFICERS

8. L. F. Page, 102d Cav. N. J.....	60 77 82 219	2.90
9.....		
10.....		
11.....		

CIVILIANS

12. J. Kingsburg, 40 E. 41st St., N. Y.....	66 68 57 191	2.90
13. Arthur A. Fisher, East Orange RC.....	60 54 49 154	1.45
14. H. S. Woodruff, East Orange RC.....	51 39 51 141	1.45
15. Alfred Gibson, Old Guard, N. J.....	30 34 33 97	1.16

29 Entries

SEA GIRT NATIONAL PISTOL TEAM MATCH

Bulletin No. 13. Match No. 27. August 31, 1924.

	Score	Prize
1. USMC 1st Team.....	67 96 78 241	
2. US Inf. Team.....	77 90 86 253	
3. USMC 2d Team.....	61 94 83 260	
4. Troop B, 102d Cavalry.....	77 96 90 263	
5. 114th Inf. Team.....	73 93 89 255	
6. Troop B, 102d Cavalry.....	373 467 428 1272	
7. USMC 2d Team.....	396 446 421 1263	
8. Troop B, 102d Cavalry.....	366 438 417 1219	
9. 114th Inf. Team.....	279 338 302 917	
10. Troop B, 102d Cavalry.....	267 270 320 857	

PRIZES

1. USMC 1st Team.....	\$15.00 and Trophy
2. Troop B, 102d Cavalry.....	\$10.00

CIVILIAN TEAM

None.

SHORT RANGE MATCH

Bulletin No. 12. Match No. 35. August 31, 1924. 49 Entries

	Score	Prize
1. L. J. Miller.....	100 7 86.12	
2. D. D. Hoag.....	99 6 4.90	
3. Thos. R. Hassall.....	99 4 3.67	
4. H. J. Wood.....	98 5 1.23	
5. Virgil Richard.....	98 5	
6. George Demeter.....	98 5	
7. W. Kelsey.....	98 4	
8. J. E. Terry.....	98 4	
9. Fred Kuhn.....	98 4	
10. Chas. H. Johnson.....	98 4	
11. Dr. H. D. Wilber.....	98 4	
12. J. W. Gillies.....	98 2	
13. N. G. Stabler.....	97 6	
14. C. S. Neary.....	97 5	
15. Wm. A. Mackey.....	97 5	
16. J. M. Sorenson.....	97 5	
17. Chas. H. German.....	97 5	
18. Paul G. Peter.....	97 4	
19. Chas. R. Held.....	97 4	
20. R. H. Betts.....	97 4	
21. Carl Omerle.....	97 3	
22. Wm. E. Weiss.....	96 6	
23. M. W. Dodson.....	96 6	
24. Floyd T. Oswald.....	96 6	
25. G. L. Schenck.....	96 6	
26. H. S. Woodruff.....	96 6	
27. S. M. Milman.....	96 6	
28. Albert H. Handwork.....	96 6	
29. J. A. Willers.....	95 5	
30. G. B. Sheldon.....	95 5	
31. C. P. Fetherolf.....	95 5	
32. F. W. Kilbourn.....	94 4	
33. Geo. C. Hamm.....	94 4	
34. A. C. Russell.....	93 3	
35. Stuart Scott.....	93 3	
36. L. J. Coran.....	93 3	
37. Norton Solomon.....	92 2	
38. Paul Mackey.....	92 2	
39. Jan. Roddie.....	91 1	
40. Wilmer F. Smith.....	91 1	
41. Victor G. Rauch.....	91 1	
42. Chas. R. Strong.....	90 0	
43. Stewart Dick.....	89 0	
44. Edgar B. Hamm.....	89 0	
45. Duncan Bettison.....	87 0	
46. George H. Sittler.....	87 0	
47. Earl Handwork.....	86 0	
48. Jas. E. Murray.....	86 0	
49. Norris M. Turwilliger.....	84 0	

Did not fire.

SEA GIRT NATIONAL TEAM

Bulletin No. 7. Match No. 3. August 29, 1924.

	Score	Prize
1. USMC, 1st team.....	456 481 479 481 954	2851
2. USMC, 2d team.....	455 492 471 471 940	2829
3. US Inf., 1st team.....	454 459 460 473 917	2762
4. US Infantry, 2d Team.....	420 481 464 469 921	2765
5. N. J. NG Team.....	399 405 391 456 839	2490

PRIZE

1st U. S. M. C., 1st Team.....	\$50.00
National Guard Team	
2nd. N. J. NG Team.....	25.00

ALL COMERS' EXPERT MATCH

Bulletin No. 5. Match No. 21. August 29, 1924.

	Score	Shot	Off	Prize
1. Sgt. T. J. Jones, MC.....	50	50		\$7.40
2. H. M. Heller, MC.....	50	48		5.92
3. Sgt. M. A. Navadsky, US Inf.....	50	47		5.18
4. M. L. Shiverley, MC.....	49	50		4.44
5. Corp. C. L. Curtis, N. J. NG.....	49	48		3.70
6. Capt. Frank Gimmill, 5th Inf., Md. NG.....	49	43		3.70
7. 2nd Lt. C. F. Crisp, MC.....	49			.74
8. G. F. Sharp, USMC.....	49			.74
9. M. L. Broderick, US Inf.....	49			.74
10. J. Jackson, MC.....	49			.74
11. Capt. J. Lienhard, MC.....	49			.74
National Guard or Reserve Officers				
12. Corp. M. W. Dodson, 11th Inf. Pa.....	48			5.55
13. Pvt. W. W. Hedden, N. J. NG.....	48			5.55
14. Capt. H. W. Bodine, N. J. NG.....	47			2.32
15. Sgt. A. C. Turner, 5th Inf., Md. NG.....	47			2.32
16. M. Sgt. J. E. Givan, 5th Inf., Md. NG.....	47			2.32

CIVILIANS

12. M. J. Kerrigan, Brooklyn, N. Y.....	48			4.70
13. O. W. Vickers, Brooklyn, N. Y.....	47			3.70
14. Arthur A. Fisher, East Orange RC.....	46			3.70
15. M. W. Sargent, East Orange RC.....	40			2.96

MEANY MATCH

Bulletin No. 4. Match No. 18. August 29, 1924.

	Score	Prize
1. Corporal E. Feury, USMC.....	50 x 53 Bullseyes	\$5.80
2. Capt. J. Leinhard, MC.....	50 x 51	4.64
3. Sergeant Maj. L. P. Carlier, MC.....	50 x 48	4.06
4. Corporal R. R. Workman, MC.....	50 x 40	3.48
5. C. R. Nordstrom, MC.....	50 x 36	2.90
6. Mar. Gun. J. J. Andrews, MC.....	50 x 33	2.90
7. Sergeant E. H. Odum, MC.....	50 x 32	2.90
8. Mar. Gun. O. Wigg, USMC.....	50 x 27	
9. 1st Lt. W. C. Conover, US Inf.....	50 x 22	
10. J. B. Ellis, US Inf.....	50 x 17	
National Guard or Reserve Officers		
11. Capt. John Kellner, 5th Inf., Md. NG.....	48	5.80
12. Sgt. A. C. Turner, 5th Inf., Md. NG.....	48	2.90
13. Corp. N. W. Dodson, Co. H, 11th Inf. Pa.....	48	2.90
14. Capt. Frank Gimmill, 5th Inf., Md. NG.....	47	2.32
Civilians		
12. Arthur A. Fisher, East Orange, RC.....	48	

THE day was warm, and the rays of the sun beat hot on the head of the rifleman; the heat waves rose writhing from the rocky walls and floor of the old quarry, and the barrel radiated pretty little somethings that made the sights and target 'way over yonder look like they'd grown whiskers suddenly.

The corpulent chap who lay on his tummy caressed a queer looking weapon; it had a brass butt plate reminiscent of the days of Boone and Crockett; the receiver was of brass polished to a state of mirror-like brilliance and a dandy thing to look over in the sun, (NOT). There wasn't any forearm to the rifle, but the bottom of the magazine tube showed a slit down which moved a projecting thumbpiece of brass, as the old .44 rim fire cartridges greased with ancient tallow slid from tube to carrier, and thence to chamber as the lever swung down and back.

Yuh guessed it, Gang, 's a Henry, and Ol' Man Wiggins is spendin' Labor Day in the usual manner of his holidays. Shootin' up some old cartridges in an older gun, to find out why the frontiersmen left any Indians to destroy our ideas of Cooper's heros.

The old gun barked, a cloud of white smoke arose, and over the seventy-five yards that separated rifle and target, Charlie Lisle sent the glad word, "Bull's-eye." The old two hundred grain chunk of soft lead had drilled the four inch black spot neatly; evidently they knew how to bore and rifle a barrel in New Haven sixty years hence, as well as they do today.

The glitter of the sun made the use of open sights, the front one a silver blade with knife edge top, a trial, and the barrel was washed out each shot with a wet cloth to prevent the leading of the pitted bore, but just the same one more of the five bullets found the mark, and all were on the card. Seems impossible, but yet the truth.

The rifle was evidently sighted for two hundred yards at its lowest sighting point, so an aiming object was selected ten inches below the bull's-eye, and a round of ten cartridges went down the tunnel under the barrel, the spring was let down easily, and Charlie retired to the shade of a bush. The cardboard top of the cartridge box was roughly held in place over the barrel to prevent too much light on the rear sight.

Ten reports and an inspection showed nine holes in the target, two being on the black. The furthest distance twixt holes was five and three-fourths inches; not bad for open sights, poor eyes, unsteady position, old cartridges, and a pitted bore. Penetration in dry fir showed two inches, not bad for a load of about the power of the old .44

TYLER HENRY'S RIFLE

by
"OL" MAN WIGGINS



American revolver load. More powder and less lead, but pretty close to it, anyway.

The old rifle worked smoothly, the action seemingly as reliable as the day back in Connecticut that they greased it up and packed it to send out to Montana Territory to kill buffalo, Indians, and elk, or perhaps to the scene of combat on the firing line of the Civil War, many Henry rifles having been used in that struggle.

How it wandered to Bozeman, Montana, we can only surmise; I know where it's going to live from now on.

The first man who took a Henry to Canada told me he was offered his own figures for the new rifle during his stay there in the late Sixties of the last century; a Cree Indian later stole the gun. He said it was the wonder and envy of the whole province where he hunted and traded.

Another man told me of the use of a Henry repeater on the Umpqua River, Oregon, in the late Sixties, also. He and a companion rode into a herd of elk in a water lily pond, and twenty-three of the animals fell, sixteen to his rifle, and seven to his companion's Colt cap-and-ball revolver and muzzle loading rifle. Each bullet killed an elk, and the party of gold seekers feasted high that night, while the rest of the carcasses dried in the smoke of the slow fires, preparing for the journey to the Jacksonville, Oregon, diggings where the jerked elk meat brought a dollar a pound easily.

Tyler Henry seems to have evolved his repeater from the older Jennings rifle, the Smith & Wesson repeater, and the Volcanic, all of which used bullets having their powder charge and priming in the hollow base of the projectile. How fire was kept from streaming down the breech and igniting the load in the carrier, and hence the magazine tube full, is

The Henry Rifle



more than I can understand, as I never saw a Volcanic cartridge. The arms were not successful, and Henry's work in designing ammunition and extractor seems to be the best of his famous contribution to arms. The split firing pin, hitting both sides of the cartridge rim, seems to have made for certain ignition, and the operation of the old rifle seems as positive as that of many modern arms, the action being nearly the same as the '73 Winchester rifle.

The guns were made by the New Haven Arms Company, from 1860 to 1866, and when the firm went into receivers' hands, Oliver

F. Winchester, who made woolen shirts but knew a good thing in weapons when he saw it, organized the Winchester Repeating Arms Company, whose product is in use in every country on the globe today. Winchester had been an officer of the defunct firm, and saw possibilities in the rifle, but all Winchesters have been made with the method of loading the magazine through the side plate at the rear, while few Henry rifles and carbines were made with King's Improvement, described above.

That those interested in the mechanics of the arm under consideration may be not greatly disappointed, I'll go into some of the easier features of the action and operation of the old Smokelore; I want Chauncey Thomas and his Buffler Sharps to stay in the corner while I'm a' doin' it, too. Ol' Man Wiggins c'n chase five shots outa the Henry while C. T. is a' swingin' that eighteen pounder up to a level, so I've got the drop on him.

The Henry operated upon the link system, and in case that is not just clear to the man who uses a Springfield and didn't cut his teeth on an old Winchester of the vintage of Seventy-odd, I may add that the Luger pistol works on the same plan, save that the action of the links is reversed, being upward instead of downward, as in the Henry and early Winchesters. Some gun authorities claim that Maxim got his breech device for his machine guns direct from the "Seventy-three" Winchester, and I am free to admit that it's the easiest working lever action I wot of.

The motion of the conventional finger lever by its action on the links opened the action by withdrawing the breechpin or block at the first motion, then the further action of the lever raised the brass carrier containing the fresh cartridge, and the top of the carrier pushed the fired case from the grasp of the extractor, which had withdrawn it from the

breech as the breechpin was opened. The rearward motion of the lever pushed the cartridge into the breech and lowered the carrier, finishing the operation by locking the action by the link motion.

I was never able to find out just what that old action would withstand in the line of pressure; I know of one gentleman near here who shuffled off the mortal coil with a .38-40 Model of '73, and he used a High Velocity cartridge to do the job with. The rifle showed no ill effects of the act, although the late lamented was perfectly ruined. I have read in old books of tests of the Model 1876 action, also operating on the link system, although much heavier than the Henry, and in which I seem to recall a load of about two hundred grains of black powder, and a bullet of about eight hundred grains. Merely a test load, of course, and still the gun came up smiling.

I never knew of a Henry rifle blowing open, I may add, although the ones which were ruined by firing with rags, etc., in the bore were doubtless numerous. The only serious fault I have ever been able to really convict the old arm of was the fact that if poor cartridges were used, say ones that had been badly affected by verdigrease, and such was easily imagined with the outside lubrication, the cartridges would stick in the chamber and the rather thin extractor would pull a section right through the rim of the copper case. Needless to say, someone craved a jack knife or a wiping stick right then. I see where Tyler was canny, to place a cleaning rod in the trap 'neath the butt plate; I can't for the life of me see why all makers don't do that little stunt now.

The magazine was loaded by first turning the gun over on its back, and pressing the brass follower by its projecting fin clear up the magazine tube to the revolving collar on the front end of the barrel, where the follower and magazine spring nested nicely into the said collar. This was then given a quarter turn to the left, where the whole contraption was held in place by a screw in the side of the barrel. Then the old .44 rim fire cartridges were dropped into the open end of the magazine as in the conventional .22 repeater of today. Easy, what?

In case there were only part of a magazine full, the follower was let down easily by the fin, the said fin projecting through the slot running the entire length of the magazine tube. Some have said that the worst fault of the rifle was to fire the cartridges in the magazine, but while I know explosions with center fire cartridges in this manner, still I can't save how rim fire loads could go off that way.

The old rifle was furnished in many styles of engraving, but the barrel was in all known instances 24 inches in length, and octagon in form. Engravers were occasionally turned loose on the helpless rifles, and did their worst, these rifles generally winding up in the cabinets of present day collectors. Some were presented to prominent citizens; some were purchased by wealthy sportsmen, and still the Henry that men generally purchased for real hard use, was as devoid of frills as possible. The sights were open ones, with elevating devices like the present Winchester carbine sights, for the rear, while a plain blade front of white metal seems to have been the standard front. Some rear sights were set on the



Upper—Henry rifle, showing action closed, links extended, and side plates resting against buttstock and barrel. Receiver and buttplates are of brass, barrel and action parts of steel.

Middle—Henry rifle with sideplates off and action open, links contracted. Note sling swivels on side of stock.

Lower—Muzzle view, showing magazine opened for loading. One cartridge showing in front end of tube.

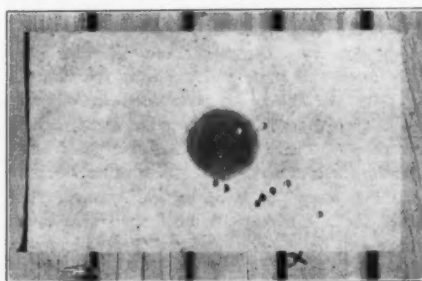
barrel, and some on the receiver, just behind the ejector port. Triggers were all plain, as far as I have ever seen.

The sling swivels were designed to carry the rifle flat on the back of the owner, the forward one being at the side of the magazine, while the rear one was not in the conventional place on the bottom of the butt stock, but on the side.

The Henry was a favorite on both sides in the Western Indian Wars; had Custer's men been armed with Henry rifles, instead of the more powerful but slower operated Springfield carbine, the Little Big Horn might have had another ending.

Uncle Jim Hall, who used a Henry when flirting with the Grim Reaper while hauling freight for the Union Pacific Lines in Wyoming during the construction days, says his rifle was very reliable. I believe him. He states the Henry repeater to have been far superior to the clumsy unreliable Spencers, and really more dependable than the crude single shots for metallic ammunition. The muzzle loader shot a little better, but was too slow when the Cheyennes were "on the prod."

A 5¼" Group Made at 75 Yds. with an Old Henry



Today the Henry is seldom met with, most of them seem to have been junked for the brass in the receiver and carrier; some seem to have been altered to use a center fire pistol cartridge, as I have seen some Winchesters of the 1866 Model done. But be they as it may, a Henry rifle, or the 1860 Model in good order is a mighty hard thing to come by, and as the years roll down the hill, they constantly increase in value.

Better hang tight to that one that Uncle William brought home from Texas, Arizona, or Dakota Territory; it's a valuable relic of the days when the ability to use a rifle was a real asset, as well as a pleasing pastime.

[NOTE.—The following notes on Mr. Wiggins excellent article have been contributed at the request of the EDITORS by Mr. L. D. Satterlee.]

I have looked over Mr. Wiggins' article and it is very interesting. I had an article on the Model 1866 Winchester under preparation, but was waiting for some dope from Winchester which they have just sent.

The Civil War Henry took a 216-grain ball, but as later it was changed to 200 grains, sometimes 202, this is a minor matter.

Mr. Wiggins is a little in error about the New Haven Arms Co. being defunct, unless he uses it in a different sense. There is no reason to suppose that this firm was bankrupt in 1866, as they made about 10,000 Henrys during the Civil War and sold them at a profit. Besides Mr. Winchester owned the New Haven, he having bought up the insolvent Volcanic Repeating Arms Co., in March 1857. He then organized the New Haven Arms Co. April 25, 1857 and turned the assets over to this new firm by bill of sale dated May 1, 1857. The articles of incorporation were filed in the Section of State's Office June 1, 1857. So Mr. Winchester owned the New Haven in 1857 and did not have to buy it up in 1865. What happened was more like this. The Henry was not favorably liked by the Ordnance Department because of the exposed spiral spring and that the tube could easily be dented stopping the cartridges from feeding into the chamber. Mr. Winchester knew this so he purchased about five patents, among these King's improvement for loading at the breech. He organized the "Henry Repeating Arms Co." July 7, 1865 by special act of the legislature. This firm however did no business. May 30, 1866 the name was changed to "Winchester Repeating Arms Co." As such, this firm took over the New Haven Arms Co., and moved to Bridgeport in latter part of 1866. They stayed there in the plant of the Wheeler & Wilson Sewing Machine Co. until February and I find the earliest ads of the Model 1866 are dated Sept. 1868. I also find that some of these improved Henry's or Model 1866's were known in 1865, because in Cleveland's testimonial he saw one at a target shoot in Washington, Conn. in that year. I am going to verify that latter statement. Now I intended to start that article by quoting the U. S. Catalog where their Winchester 1866 is said to be marked "New Haven Arms Co." It isn't though. D. Wiggins in a sporting magazine three of four years ago,

mentioned that too, but he did not know the catalog was wrong however. However, here's the solution. There is an earlier edition of the U. S. Catalog dated 1902, where illustrations are on a black background. This earlier edition simply states this Model 1866 was made by the New Haven Arms Co. So I think the New Haven did make a few Model 1866's as early as 1865, with King's Improvement. Making a new model means some new tools you know.

Mr. Henry did not go to Bridgeport with the firm. He stayed in New Haven and appears as a dealer in firearms. This may be the reason why the name was changed to Winchester May 30, 1866.

Official Scores at Sea Girt

(Continued from Page 19)

GOVERNOR'S MATCH

Bulletin No. 8. Match No. 29 August 30, 1924.

	Score
1. Bugler H. L. Sykes, Troop B, 102d Cav.....	321
2. Pvt. W. W. Heddon, Troop B, 102d Cav.....	320
3. Cpl. M. W. Dodson, Pa. N. G.	319
4. Cpl. C. L. Curtis, Troop B, 102d Cav.....	319
5. Sgt. Gilbert Shivers, 114th Inf.....	315

LONG RANGE MATCH

Bulletin No. 11. Match No. 38. August 31, 1924.

	Score	Prize
1. W. Kelsey Roosevelt RC.....	90	\$4.70 and Medal
2. N. G. Stabler, FARC.....	99	3.52 and Medal
3. L. J. Corna Woodhaven RC.....	99	2.35 and Medal
4. L. J. Miller, FARC.....	98	1.65
5. M. W. Dodson, Kingston, Pa.....	97	1.64
6. H. S. Woodruff, East Orange RC.....	97	1.18
7. H. J. Wood, Remington RC.....	97	1.18
8. J. A. Willner, F. Ars. RC.....	97	1.17
9. Fred Kuhn, Remington RC.....	97	1.17
10. Clarence C. Held, Bear Rock RC.....	97	.71
11. J. M. Sorenson, Perth Amboy RC.....	96	.71
12. E. E. Handwerk, Bear Rock RC.....	96	.71
13. R. H. Betts, FARC.....	96	.71
14. S. M. Milman, Brooklyn RC.....	95	.70
15. C. F. Fetherolf, Bear Rock RC.....	95	.47
16. J. W. Gillies, Roosevelt RC.....	95	.47
17. Thos. R. Hassall, Roosevelt RC.....	95	.47
18. J. E. Terry, FARC.....	95	
19. D. D. Hoag, Tenafly RC.....	95	
20. C. S. Neary, Remington RC.....	95	
21. A. D. Wilber, Roosevelt RC.....	94	
22. G. B. Sheldon, Poughkeepsie RC.....	94	
23. G. L. Schenck, Elizabeth, N. J.....	94	
24. O. P. Wood, Yonkers RC.....	94	
25. Floyd T. Oswald, Bear Rock RC.....	94	
26. Chas. R. Strong, FARC.....	93	
27. W. E. Weiss, Bear Rock RC.....	93	
28. Paul Mackey, Poughkeepsie RC.....	93	
29. Geo. Demeter, Yonkers RC.....	93	
30. Geo. H. Sittler, Bear Rock RC.....	92	
31. Albert Handwerk, Bear Rock RC.....	92	
32. Victor G. Rauch, Bear Rock RC.....	91	
33. Morton Solomon, Allenhurst, N. J.....	89	
34. Chas. H. German, Bear Rock RC.....	89	
35. J. E. Murray, Roosevelt RC.....	89	
36. Paul G. Peter, Bear Rock RC.....	88	
37. Stuart Scott, New York City.....	87	
38. Duncan Bettison, Clifton RC.....	85	
39. A. C. Russell, Remington RC.....	85	
40. F. W. Kilbourne, Clifton RC.....	84	
41. Norris M. Terwilliger, Clifton RC.....	83	
42. Chas. H. Johnson FARC.....	83	
43. Wilmer F. Smith, Bear Rock RC.....	77	
44. Edgar B. Hamm, Bear Rock RC.....	70	
45. W. A. Mackey, Poughkeepsie RC.....	66	
46. Geo. C. Hamm, Bear Rock RC.....	27	

THE SADLER MATCH

Bulletin No. 10. Match No. 4. August 30, 1924.

	800	900	1000	Total
1. USMC 1st Team:				
Corporal E. Peury.....	74	75	70	219
Corporal H. M. Heller.....	74	72	73	218
Mar. Gun. C. A. Lloyd.....	75	75	73	223
Sgt. Maj. L. P. Cartier.....	75	74	73	222
Corporal E. Wilson.....	75	71	71	217
Pvt. R. F. Seitzinger.....	74	74	74	222
Gy. Sgt. B. E. Clary.....	74	73	66	213
Gy. Sgt. C. R. Nordstrom.....	74	74	69	217
	595	588	568	1751
2. USMC 2d Team.....	590	576	573	1739
3. USMC 3d Team.....	582	581	566	1729
4. US Infantry 1st Team.....	584	579	561	1724
5. US Infantry 2d Team.....	588	576	558	1722
6. East Orange Rifle Club.....	523	505	492	1520

PRIZES

1st—USMC 1st Team.....	\$30 Sadler Trophy and Medals
3d—East Orange Rifle Club.....	\$15.00, Framed photo of Trophy and medals

VETERAN ORGANIZATION TEAM MATCH

Bulletin No. 9. Match No. 8. August 31, 1924.

	Score
1. 71st Regt. Veteran Rifle Team No. 1.....	244
2. 71st Regt. Veteran Rifle Team No. 2.....	228



Conducted by

Lt. Col. G. C. Shaw

Special Springfield Rifles

The Director of Civilian Marksmanship made a visit recently to Springfield Armory and among other most interesting work being carried on there found three projects under way that are of much interest to civilian riflemen. These are as follows:

1. The U. S. Rifle Cal. .30, Model 1903 with

sporting stock, generally known as the "Sporter Springfield."

2. The Rifle, Cal. .30 with heavy barrel.

3. The U. S. Rifle, Cal. .22, Model 1922, with latest modification, to be known as the "Model 1922, M1."

RIFLE, CAL. .30, WITH HEAVY BARREL SPORTING STOCK

Springfield Armory has now on hand and ready to be assembled into complete rifles the following heavy barrels:

Number	Length	Price
10	26 in.	\$40
20	28 in.	\$41
20	30 in.	\$42

These heavy barrels may be purchased alone or they may be purchased assembled to a receiver. If you want to purchase a barrel only, send old receiver to the Armory to have the assembly done there, as the barrel alone will not be sent out. Additional cost of a receiver, \$5.10 plus \$1—cost of assembling to receiver. Springfield Armory will assemble these barrels into complete rifles, using a standard assembly. The cost complete with this assembly will be \$85. This assembly will be as follows:

Stock, Sporting type, same as "Sporter," Cal. .30. **Sights**, Winchester or Lyman hooded front sight. Lyman No. 48 rear sight. **Barrel** fitted for telescope blocks for Winchester 5A scope. **Butt Plate**, Same as Model 1922, Cal. .22. **Trigger**, Service. **Action**, Service. **Weight**, about 14 pounds.

It is contemplated that each purchaser will equip his rifle with palm rest and set triggers if he so desires. Such work will not be done at Springfield Armory at this time. As orders are received rifles will be assembled and targeted without extra cost. Shipments will be made within two weeks from receipt of order at Springfield Armory. Springfield Armory advises that these rifles be purchased complete as assembled at the Armory. The stocks and bolts are carefully assembled there and the rifles are targeted as thus assembled. If assembled in different stocks than those in which targeted at Springfield the rifles will give different results. This office therefore recommends that these rifles be purchased as assembled at Springfield Armory. Any order for a different assembly than that given above will be at additional cost and will require additional time.

U. S. RIFLE, CAL. .22, LONG RIFLE, MODEL 1922, M1.

This rifle is the latest improved caliber .22 and will be known as the U. S. Rifle Cal. .22, Model 1922 M1. It is very similar to the Model 1922 cal. .22 now sold by the N. R. A. for \$40.96, but has the following modifications:

The new model has a single instead of a double striker and a flush magazine instead of a projecting magazine. There is also a slight modification of the chamber and the barrel has a slightly different contour. The stock and sights of the latest model are the same as those of the Model 1922 and the general appearance is the same except there is no projecting magazine.

A large number of these rifles are in process of manufacture for the Regular Army and the R. O. T. C. but so far none are being manufactured for sale, and it is believed that it will be a year before any are manufactured for sale. Arrangements are now being made so that those who have purchased Model 1922 rifles may send these rifles to Springfield Armory and have a new bolt and magazine put in at their own expense.

It is considered desirable that the old rifle complete be sent to the Armory to have a new bolt head fitted and the rifle targeted with the new bolt as it is found at the Armory that a change of bolts makes a great difference in the shooting of the cal. 22 rifle. This is more noticeable than in the cal. 30. THE AMERICAN RIFLEMAN, will announce when these new rifles can be sold or when modifications of the model 1922 can be made and the cost.

The Model M. 1 rifle has a barrel slightly different in contour than the present cal. 22 and the stock has a little more drop. This makes the stock of the Model M. 1. slightly different than the Model 1922 stock. However there are enough barrels on hand of the present contour to refit new barrels to the present rifles without changing the stock. Orders for these new rifles or of modification of the present Model 1922 should not be sent in until it is announced that the work can be done or the new rifles sold.

U. S. RIFLE CAL. .30, MODEL 1903 SPORTING MODEL

This rifle is now ready for shipment from Springfield Armory and can be purchased through the D. C. M. Price, \$50.84, including packing charges. All back orders for this rifle have been filled and orders can be filled for complete rifles immediately. This rifle was described in THE AMERICAN RIFLEMAN of January 15, 1924. These rifles have the sporting stock and are fitted with the Lyman No. 48 rear sight and the Service front sight. Every rifle is star gauged and specially selected and is targeted at 200 meters in its own stock and with its own carefully fitted bolt, by the experts of Springfield Armory.

The targets made by these rifles are most excellent and show that the rifles are first-class in every respect. Springfield Armory is proud of this rifle and thinks that the results obtained will be hard to beat.

When rifles are purchased the targets of each rifle will be furnished if desired. When ordering a rifle ask for the target if you want it. The barrels and receivers (assembled) of these rifles may be purchased but this is not considered advisable by the experts at Springfield as each rifle is carefully stocked and the bolt accurately fitted, and it is believed by them that their assembly gives the best possible results. Telescope sight bases for the Winchester 5A scope can be put on this rifle at an additional cost of about \$3.50. These bases do not interfere with the use of the Lyman sight. Telescopes are not furnished at Springfield Armory for this rifle. This rifle can be furnished at once if purchased as assembled at Springfield. If extra work is desired it will add to the cost and will delay the shipment of the rifle. This office strongly advises purchasers to purchase the rifle as assembled at Springfield Armory.

NOTICE

The attention of the readers of THE AMERICAN RIFLEMAN is invited to the following items as it is believed that if they are carefully read it will reduce the paper work of this office considerably.

SUPPLIES EXHAUSTED

The following supplies are exhausted and will not be replaced. Orders for them cannot be filled and should not be sent in.

Springfield rifles (new) Cal. 45. (Used rifles are still on hand).

Springfield rifles Cal. 45. Cadet Model.

Ball Cartridges, Cal. 7.62mm for Russian Rifle.

Ball cartridges, revolver, cal. 38.

UNLISTED SUPPLIES FOR SALE

French Ammunition

This office has been advised by the Ordnance Department that there is available for sale at Ft. Benning, Ga., a limited amount of ball cartridges for the French Military Rifle, cal. 8 mm.

This ammunition is for sale at \$8 per 1,000. No packing charges. The French Rifle can be purchased for \$10. This combination is a very good "buy."

OBSOLETE ARMS

The "Obsolete Arms" advertised in the N. R. A. Price list on page 6, are not guaranteed as to accuracy and are sold "As is."

They are said to be "serviceable" but that is a very elastic term. Generally it means that they will fire a cartridge without danger to the firer.

Generally these arms are reported to give satisfaction and are considered to be a very good "buy" for the price paid for them.

This office will not guarantee their accuracy and on account of the low price at which they are sold the Ordnance Department will make no selection or test of these arms.

The purchaser takes them "as is" and takes his chances on getting a good one.

It may be stated that very few complaints have been received as to the shooting qualities of these arms.

HEAVY BARREL FOR CAL. .22 RIFLE

Some inquiries have been received regarding a rifle Cal. .22, with a heavy barrel similar to the one shot by Lieutenant Wotkins at Sea Girt, last summer.

No more of these barrels have been made and it is not known if they will be made. If it is decided to make any more it will be announced in THE AMERICAN RIFLEMAN.

RUSSIAN RIFLES

The Russian Rifle, cal. 7.62 mm. is still for sale, but as there is no ammunition for this rifle for sale by this office all orders for the rifles should state that you wish the rifle regardless of the fact that the ammunition cannot be procured from the Arsenal.

Unless so stated on the order the rifle will not be shipped until this office ascertains whether or not it is desired due to there being no more ammunition for sale.

Ammunition for this rifle can be procured from commercial firms but at a considerably higher cost than formerly from the Arsenal. Therefore state on all orders for Russian rifles, "Send rifle regardless of fact that ammunition cannot be procured at Arsenal." Otherwise shipment of rifle will be delayed.

170-GRAIN BULLETS

The D. C. M. has on hand 1,000 bullets, cal. 30 170-grain, gilding metal jacket, flat base. Price \$9. per 1,000. No packing charges.

THE CIVILIAN AT CAMP PERRY

The attendance of civilians at Camp Perry in the 1924 matches was fairly satisfactory and their work in the various matches was very creditable indeed.

About 200 individual civilians registered at the office of the Director of Civilian Marksmanship and 19 civilian teams shot in the National Rifle Team Match.

The scores made by these teams and the civilian team which represented the civilian riflemen in the United Service Match have been published in THE AMERICAN RIFLEMAN and it will be seen from these scores that the civilians did very good work.

On account of the lateness of the date upon which it was decided that civilian teams would be sent to the National Matches it was impossible

for all States to organize teams and send them to the matches.

An effort is being made to revive the various State rifle associations. During the war they died in many of the States but as there are now many civilian clubs organized in nearly all the States it is believed that there should be a strong State organization in each State to coordinate the efforts of all these clubs.

A strong State association will make for a strong State civilian team and will insure its being selected by competition rather than selection as is usually done when there is no State Association.

The arrangements at Camp Perry for handling the civilian, especially the unattached individual civilian was not entirely satisfactory but it is believed that by another year such arrangements will be made that will insure every unattached individual being "personally conducted" until he is settled in camp, fully equipped and is fully informed regarding the procedure of the instruction and the matches.

The Director of Civilian Marksmanship will be very glad to receive any suggestions regarding the civilians at Camp Perry which will aid in forming plans for their work there at the 1925 matches.

MISSING

The addresses of the following riflemen are missing from the N. R. A. files. Certain material is being held for them, and if they or any of their friends will advise us as to their present addresses, together with a statement as to what items they think may be held for them here, the material will be forwarded.

Mr. D. H. Barto Mr. M. Graham
Mr. E. H. Coleman Mr. John Beedle

.22 CALIBER SHOOTERS TAKING ADVANTAGE OF OPPORTUNITY

Thirty small bore riflemen qualified during the months of September and October over the new small bore qualification course. The small bore season is just about closed, but a similar gallery qualification course is included in the Gallery Program, and gallery qualifications are already beginning to come in. The most recent additions to the list of small bore qualifications follow.

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THE DOPE BAG



A FREE SERVICE TO TARGET, BIG GAME AND FIELD SHOTS
ALL QUESTIONS BEING ANSWERED DIRECTLY BY MAIL

Rifles and Big Game Hunting: Major Townsend Whelen Pistols and Revolvers: Major J. S. Hatcher
Shotgun and Field Shooting: Capt. Charles Askins

Every care is used in collecting data for questions submitted, but no responsibility is assumed for any accidents which may occur.

The .250=3000 Savage

By L. P. Holmes

With Comment by Major Townsend Whelen

SOME time in the past, in fact at least a year ago, I took the little bolt action .250-3000 Savage off the gun rack with the idea at the back of my head of tinkering up some reloads for it. The little gun had originally been billed to fill the needs of my wife, but I had long promised myself a spree with it, and when the opportunity offered I seized upon it avidly. Bond sent up the tools, together with a few hundred .25-20 metal jacketed 86-grain bullets, both full patch and soft point. With U. S. No. 8 primers, du Pont 80 powder and a mixture of Savage, Remington and Western cases I went to work.

I know a lot of the boys won't putter around with reloads but personally I get twice the kick out of shooting stuff I put together myself than I do the factory product. Here is how I look at it. About 16 grains of powder behind the .25-20 bullet gives me velocity very near to that of the old .25-20 Hi-velocity load. Outside of the time spent in putting this load together it costs me in the neighborhood of one and a half cents per shot. It is very accurate and packs a wallop for rabbits and squirrels that is a sure enough knockout. I have no trouble picking the heads off jays, doves and other feathered game up to the limit of my holding. To be truthful this load and the little Savage have entirely supplanted the .22 rifle in this house.

All last spring and summer I hunted squirrels and rabbits with this combination and my confidence and affection for it have grown steadily. It has traveled every where with me in the car and many are the impromptu and pleasant sessions I have had in some "digger" squirrel colony located close to the highway.

About two months ago another idea hit me. Acting upon the hunch I took an old sling swivel from a Springfield, reamed out the lug to about three-sixteenths inch, worked a fin on it with a file then heat blued the arrangement and fitted it in place of the bead front sight. This gave me a relatively large aperture on front with a heavy ring which gives very clear definition. Used in conjunction with the large aperture of my Lyman peep it seems to take in all outdoors. It is wonderfully effective however and is the easiest sight combination for game shooting I have ever looked over, being especially good on moving game. Of course it is along the same principle as the Vickers-Maxim sight, but is noticeably free from the glitter which characterizes the latter.

With the opening date of deer season a week or so away I began weighing the idea of whether to pack the old Springfield as usual or to give the little Savage a change on something bigger than diggers. Convinced that my regular practice with the latter would make it the most effective I bought a couple of boxes of Western Lubaloy 100-grain open point ammunition and went out to a neighboring ranch to sight in with the full powdered stuff. Setting the rear sight by guess I took a standing rest from the top of a fence post and cut loose at a digger some hundred yards away. At the report he turned a back somersault and stayed put. The bullet had taken him squarely between the front legs as he sat facing me. I verified the sighting on a target, firing two five-shot groups prone without rest or slingstrap. I paced off the distance as a hundred yards though it was probably somewhat farther as I stand six-foot in my socks and take a pretty good stride.

Considering the fact that I shot without the aid of a sling strap or rest, the groups were good. In the first group one of the shots got away from me and ran the group out to three and a half inches. The second five however measured just two inches across from centers of holes farthest apart. Superimposed one on the other nine of the ten shots measured two and a half inches. Not half bad, all things considered. Anyway I was entirely satisfied and when I took the deer trails two weeks later the little Savage was cradled in my arm.

My first chance at a buck came late in the afternoon of the second day. The dogs got him up in a thicket of lodge pole pines and took him through some brush around the steep slope of a hillside below me. I caught a glimpse of tawny hide through my twin apertures and cut loose. At the shot he dove into a little gully but did not come out. He was stone dead when I got to him. Examination of him showed an exhibition of killing power that was truly remarkable. Not one particle of that bullet had entered the body cavity!

Due to the downward angle at which I had shot, the bullet, striking him in the heavy elbow joint of the shoulder, smashed this joint slashing down across the brisket and shattering the opposite fore leg below the knee. There was bloody foam in his nostrils but not a single wound inside the body. The half ton shock of the strik-

ing bullet had killed him almost instantly.

My second buck, killed nearly at the end of the season was running up the point of a ridge about 125 yards distant. It was simple to pick him off with that aperture front sight. I merely watched his head and shoulders climb into the ring and then pulled. He never kicked. The 100-grain hollow point took him about two inches to the left of the back bone and ranged down into the heart and lung cavity. He was probably dead in the air.

While fully realizing that the killing of two deer offers little enough on which to judge the merits or demerits of any cartridge, at the same time the action of the .250-3000 in these cases is a vindication of a theory I have long held and propounded. For years I have maintained that the excessive penetration and ordinary laceration of bullets of the type of the .30-30, .25-35 etc., was inconsistent for the clean killing of deer. Naturally enough a bullet from any of the above type of calibers, if placed in the body of a deer will result fatally, but it must be remembered that as a rule deer are hunted and found either in or around heavy cover and if not put down for keeps on the first shot often succeed in eluding the hunter, to die later and make a meal for some wandering varmint or group of buzzards. And deer while still fairly plentiful are not enough so to be wasted in this manner.

For the past fifteen years I have been hunting and killing them and have made a close study of the killing effect of different types of bullets. My observations have led me to the conclusion that deer are peculiarly susceptible to the smashing, stunning wallop of the present day high speed cartridges. Perhaps no other cloven hoofed animal in the Western Hemisphere has so highly an organized nervous system as the deer family. They can run unbelievable distances with heart and lungs shot to pieces but go down instantly before a bullet that SHOCKS! Stewart Edward White tried out his heavy double elephant rifle on some small specie of African antelope and found in a good many cases that the Springfield with its higher speed bullet did better killing. One particular antelope took three or four of the big slugs through the body before taking the count. This no doubt was due simply to the big bullets going through carrying most of their energy with them. Could just one of those bullets been so constructed as to have stopped IN the antelope, and made the animal's highly organized nervous system the recipient of that tremendous energy, instantaneous death must have been the result.

And so it is with deer. I have killed deer with a good many different calibers, from the big bull .35 Winchester down to the little .250-3000 Savage and by far the greatest percentage of clean kills resulted where the bullet did *not* go through. We hear from time to time a lot of talk to be the veriest "bunkum." I have never only superficial surface wounds or going to pieces on some twig it happens to strike in passing. As does Chas. Askins I believe this talk to be the veriest "bunkum." I have never observed such a happening nor can I get a really authoritative report from some one who has. Pinned down, such reports thin out rapidly and soon resemble highly "gasified" rumors. In most cases their origin springs from the excuse of some tin horn sport for not being able to connect with his game. This particular type of nuisance has to blame something for his failure and as the gun can't talk back it becomes the goat.

The 100-grain hollow point .250 ammunition as put out by the Western people is a splendid load. It packs over a half a ton of punch at 200 yards, has just the right amount of penetration, is beautifully accurate and is a killer. No right minded sportsman need worry about his choice of a .250-3000 Savage. With the above 100-grain load it is ideal "medicine" for deer and black bear and its possibilities in reloads are unlimited.

Comment (by Major Whelen). The Editor has forwarded to me your letter of Oct. 2nd, and I am returning it to him with the recommendation that it be published. The more I use the little .250 Savage bolt action rifle the more admiration I have for it. It is a most excellent little rifle, and extremely accurate. I have never seen a poor shooting one. It does most remarkable work with all kinds of proper ammunition. It is most remarkably accurate with a reduced load of 12 grains of du Pont No. 80 powder and the 87-grain full jacketed bullet. In fact you will see some groups I have lately fired at 100 yards with this ammunition in a rifle with a special barrel for this cartridge that are most remarkable, being under one inch in diameter. This is a most excellent small game load. With the Western 100-grain load it seems to be good for a two-inch group at 100 yards any day in the week, and this load, as you know, is excellent for deer, and also I know it to be fine for sheep, but please, don't let's use it on larger game. It will wound too many, it won't be humane, and sportsmen will be wounding several animals before they kill one to fill their license thus defeating the purpose of the game laws for the wounded animals will almost always die. The only fault I have to find with this rifle is the ugly stock and the boy sized butt-plate. Recently I made a test of this rifle to determine the effect of holding it in various ways, and of resting the barrel. This test was inspired by Charles Askins' article in the May 1924 issue of *Outdoor Life*. I find that various ways of holding and of resting the rifle, even when the barrel is rested on a hard plank near the muzzle, make practically no difference in the location of the point of impact. The rifle is very reliable.

REBORING FOR GROUSE

I AM shooting a Parker 16-gauge, double, V. H. grade, 28-inch barrels. The right barrel is about 56 per cent (170 No. 7 shot in 30 inches at 40 yards), and the left full choke. The gun is chambered for 29/16-inch cases. In this country the grouse stay in rather thick cover and most rabbits are taken at rather close range as well as are quail. I have been thinking of having the improved cylinder bore and would appreciate your advice on this. It would seem to me that a cylinder barrel would permit greater velocity to the shot and less deformity than one with some choke. Am I right in this? I am not an expert wing shot. Are 29/16-inch cases the best size?

I am wondering if the Super X shells give a smaller pattern at a given distance than the regular, standard shells?

Are 20 grains powder and one ounce of shot heavy enough for grouse and rabbit or would you recommend 22 grains?

Is De Luxe powder better than Du Pont No. 93, and do you know whether it will be loaded into shells very soon and placed on the market?

What would you consider the maximum effective range of the right barrel of my gun if it is changed to (a) cylinder bore (b) improved cylinder bore? What do you regard as the best powder charge, weight of shot and size of shot for grouse?

The finish (browning or bluing) on the receiver of my gun, (i.e., that part of metal attached to the stock) has worn off badly and rusted slightly in one season's use. Is this usual or should it have lasted longer? Would you recommend having it refinished?

I shall deeply appreciate your help in answering these questions and wish to thank you most kindly in advance for so doing. W. L. M., Midland, Pa.

Answer (by Captain Askins). Your right barrel as it is now is about right for the second barrel on grouse and quail, not the first barrel. Have the gun rebored improved cylinder and quarter choke for second barrel, that is about 45 per cent for the first barrel and 55 per cent for the second. Your gun is too close for the very best shot to use in the brush. Don't bore straight cylinder, the patterns are too irregular.

Because of greater resistance, bring out the full force of the powder, choke bores are said to have a slightly greater velocity than cylinder bores. Shot deformity is mostly due to the cone and occurs in cylinders and chokes alike.

The Super X 16 is the shell for you, if your gun weighs around seven pounds. It contains 1 1/4 ounces of shot and shoots strong, with a trifle more spread than the regular ounce charge. Try those cartridges and I predict you will continue to use them.

De Luxe is better than No. 93 for some purposes, but there is not much difference and De Luxe is not to be had. Right barrel improved cylinder, Super X, 1 1/7, range 35 yards. The finish of your gun should not have worn off in a year. Have the Parkers refinish it without charge.

A SCATTERING HANDGUN

I HAVE a .45 S. A. Army Colts 4 3/4-inch barrel, as perfect as any gun crank could want to look at. But will not shoot where I hold it, at 20 yards it shoots every place except where it should. I thought maybe the sights were out of line. But it shoots high, low and to both sides. I have been shooting black powder. Do you think smokeless would help it to do better shooting, or what do you think is wrong with it? It sure has got my goat. The gun has a very fine action, and is chambered very close and is in new condition. "No, two troubles." Can you tell me where I can get revolver or pistol grips made to order? As you know most pistols or revolvers from the factory have very poor grips. What I mean they will not fit the hand and give a straight back trigger pull. I am going to buy a S. & W. .22-caliber 10-inch barrel target pistol, and I want to restock the grip. S. E., Springfield, Illinois.

Answer (by Major Hatcher). It is rather difficult to tell what the trouble is with your single action Colt .45, without seeing the gun and trying it out. The fact that it scatters, instead of just placing the group wrong, shows that the trouble is not with the sights.

Unless you are used to handling one of these guns with black powder, it may be possible that the very heavy recoil is throwing you off. If you try the gun with a lighter charge, you might find different results. Many people using these very heavy charges, unconsciously flinch slightly, and thus throw the shots wild.

The best way to get a grip to suit you is to take two blocks of wood, one for each side, and shape them up yourself until they just fit your grip. I found it necessary to do this on my own S. & W. .22-caliber.

By writing to the Company, you may be able to get two blocks of wood cut out on the inside to fit the frame of the gun.

SIGHT SETTINGS

WILL YOU kindly settle the following controversy between myself and a friend: I claim that a 220-gr. bullet in .30-'06 will have a point of impact of 8" to 10" lower than 180 gr. 2700 m. v. at 200 yards. My own shooting seems to bring this out, but it is by an ordinary shot with sling, prone.

Kindly tell me the exact difference in sighting between 220 gr. (2450 f. s.) and 180 gr. (2700).

Proper powder charge (Dupont 16) to give 2700 f. s. with 170 gr. and 180 gr. and 2450 f. s. with 220 gr. L. M. G.

Answer (by Major Whelen). I have your letter of Oct. 5th. It is not possible to tell you the difference in elevation required for 200 yards in the Springfield rifle when shooting a cartridge loaded with 180 bullet at 2700 f. s., and another cartridge loaded with 220 grain bullet at m. v. 2450 f. s.

Theoretically the difference should be that equal to the greater drop in 200 yards by the 220 grain bullet over the drop of the 180 grain bul-

let. Perhaps this might be as much as an inch or two. But we also have to take into consideration the jump caused in the rifle by the two cartridges, and this jump is dependent on many things, such as the length and drop of stock, weight of barrel, etc. Practically speaking, I think that the difference in sighting will be so small between the two cartridges that it will not be noticeable to even a most expert shot. Perhaps it may be as much as minute or two. It may even be in some rifles that the difference in jump or flip is such that the 180 grain cartridge may actually require a trifle more elevation at 200 yards to bring the point of impact and point of aim to coincide than the 220 grain cartridge does.

The following are the maximum charges of DuPont No. 16 powder for the Springfield cartridge:

With 170 grain bullet: 47 grains weight of DuPont No. 16. M. V. 2650 f. s. Pressure 50,000 lbs.

With 180 grain bullet: 46 grains weight of DuPont No. 16. M. V. 2575 f. s. Pressure 50,000 lbs.

With 220 grain bullet: 44 grains weight of DuPont No. 15 powder. M. V. 2325 f. s. Pressure 51,000 lbs.

These charges should not be exceeded. To obtain higher velocities the cartridge companies use other kinds of powder which are only sold to them as the pressures must be controlled in loading with a pressure gun, each lot of powder differing slightly in its rate of burning.

THE BEST OF "BABIES"

I AM interested in securing a very small, compact revolver or pistol that can be slipped in the pocket or a lady's purse and have heard the .25-caliber, vest pocket Colt well spoken of. Never having seen this model or fired an automatic, I know little about them, but think it would be about what I want as it is compact. Can this pistol be loaded so that when a clip of cartridges are in, there would not be a live shell in the chamber the first time the trigger is pulled? In other words, I would not like the hammer back and shell in position.

I have an Officers Model .38 Colt, and of course with this one can leave an empty chamber or two if one should pull the trigger accidentally or too hastily. Would prefer a revolver, only it is not so compact. Thanking you for this information and any suggestions, I am, C. H. F., Muscatine, Iowa.

Answer (by Major Hatcher). The .25-caliber vest pocket Colt is very satisfactory indeed for one wanting the smallest possible pocket weapon that is capable of doing real execution. I have used one of these weapons for a great many years.

If the pistol is loaded as you suggest, with a clip of cartridges in it and none in the chamber, it will be necessary to pull back the slide before the gun would be ready to discharge.

Most people prefer to carry the gun with one cartridge in the chamber and the safety on. In this condition the gun is quite safe, as there is no exposed outside hammer to catch on anything, and in fact there is no hammer at all, as the firing mechanism consists of a cylindrical firing pin with a spring behind it, and the pin is held quite positively to the rear as long as the safety is on. In addition there is a grip safety which makes it unlikely that an accidental discharge would occur even if the thumb safety were left off.

A valuable additional safety precaution is the fact that when the magazine is removed, the gun cannot be fired. This prevents the danger of some inexperienced person taking out the magazine and then snapping the gun with a cartridge still in the chamber, thinking that the gun had been unloaded.

I think this little Colt pistol is the most satisfactory one for the purpose you mention.

SENDING ORDERS TO GERMANY

SINCE writing you a day or so ago I have read your article on your 7mm. Krieghoff Mauser and am very favorably impressed with the performance of this rifle—so much so, in fact, that I have decided to add one to my battery.

Major, would it be too presumptuous for me, an utter stranger to you, to forward to you foreign exchange for \$43.00 with the request that you transmit the same to Krieghoff and have him make and ship me a Mauser identical with yours *with the exception of having the stock carry a three and one-half inch drop at heel instead of the three inch drop at heel that your rifle carries?*

I find that I require slightly more drop at the heel than the ordinary shooter—the vertical distance from the point of my shoulder to a point opposite the center of my eye being $8\frac{1}{2}$ inches.

I believe the "as issued" service stock on the Springfield carries a $3\frac{1}{2}$ inch drop at heel stock, and I have found it satisfactory in this particular.

I note you have fitted a Lyman sight on the bolt head and that you prefer this sight to the 48 Receiver sight for hunting in which preference I am inclined to agree with you, and in this immediate connection will you advise me as to the feasibility of sending this rear sight to Krieghoff along with my order to be fitted at time rifle is made so that it could be shipped me complete?

If it would in any way be advantageous to handle this matter in your name with Krieghoff (and, frankly, I believe it would) I shall be pleased to deposit with you at this time the estimated duty on this rifle so that you will be perfectly safe in ordering it for me. J. H. P.

Answer (by Major Whelen). I have your letter of recent date relative to the 7 mm. Mauser. A matter has come up which considerably changes matters as to this rifle. Captain Crossman informed me two weeks ago that Krieghoff has just about doubled his prices, giving as his excuse the stabilization of the mark in Germany and the consequent increase in cost of labor and materials. Had I known this at the time that I wrote the article for *Outer's Recreation* I would have worded it very differently. I regret this occurrence, but I cannot see that it is our fault, but merely another example of the uncertainty in dealing with the Germans.

This would make the rifle cost in Germany about \$80.00, plus about \$4.00 for packing and parcel post. Then the duty of 55 per cent plus \$10.00 would bring the total cost up to about \$128.00, plus the cost of Lyman sight and gunslings, or a net price of about \$138.00. Actually the rifle is worth about \$125.00, so the price of \$138.00 is not cheap.

There is a decided question in my mind as to whether we had not better patronize our own gunmakers. For example, you can get a Springfield action complete from the D. C. M. for \$16.00, about. The several private makers will place a barrel on it for about \$25.00, which will be just right for the 7 mm. American ammunition, and a little more accurate than the Krieghoff barrel. Add \$10.00 for Lyman No. 48 sight. Have the rifle stocked to your exact dimensions with the best imported walnut which will cost approximately \$60.00, or get a ready made stock of American walnut from R. D. Tate of Montague, California, and you have a total cost of between \$75.00 and \$120.00, depending on the character of stock, finish, and fittings. This will give you a better rifle than the Krieghoff, and lighter rifle, as the Springfield action is about three ounces lighter than the Mauser.

The only thing that you cannot get in this country is the matted barrel, and I doubt if this is worth while.

As an accommodation I would be very glad to write the specifications for an American 7

mm. rifle, and do the ordering for you. Or, if you just want more advice and will do the ordering yourself, this advice is of course free through the Dope Bag Department of THE AMERICAN RIFLEMAN. But I don't want to take the risk of ordering anything from Germany with the present conditions over there, even for my best friend. There is too much uncertainty about it.

If you should still wish to order from Krieghoff, and I believe that he is perfectly honest and reliable except on the matter of an established price, the matter is very simple. Write to Heinrich Krieghoff, Suhl in Thuringen, Germany, telling him that you want a 7 mm. Mauser exactly like mine (he has my specifications on file) except with certain different stock dimensions which you should give in detail. Ask him to quote you a price on the same. You will receive reply in about three weeks. Then you remit the amount to him in draft in U. S. currency, and he books your order. It took about four months for my rifle to be completed after I sent Krieghoff my money. The rifle was shipped by parcel post in two zinc lined packing cases, and Krieghoff will bill you at about \$4.00 for this packing and the parcel post charges. The two boxes come by parcel post to your post office, and all you have to do is to go down there when notified, pay the duty, which is 55 per cent of the cost, plus \$10.00, and get the rifle. The barrel and receiver then have to be mounted in the stock, and if you desire a Lyman sight on the cocking piece like mine, you should then mail the bolt complete to the Lyman Gun Sight Corp., Middlefield, Conn., with instructions. They will mount your sight and return the bolt to you.

The more I use my 7 mm. rifle the more I like this caliber, but I feel sure that a 7 mm. American rifle would be a little more accurate than the barrel I now have. All of the American barrels that I have obtained have been exceedingly accurate. Just recently I have completed testing two such barrels for the .250-3000 Savage cartridge which both give groups at 100 yards, every shot of which would be under a silver dollar. I would advise the 7 mm. American rifle.

A CHOICE OF GUNS

I Have gotten and studied catalogues of all the better grade American guns, and obtained all the local information that I can and my choice has narrowed to the No. 4 Ithaca and the C. E. Grade Fox. With ejector, the list price on the former is \$120, and \$115 on the latter. I am unable to find either of these guns in stock here, nor can I learn of anyone here who owns either, so can't definitely decide which gun I prefer. If I may persuade you to answer three more questions, I shall greatly appreciate it.

First, which of the two guns mentioned above, considering price, would you personally prefer?

Second, For the average hunter, what weight trigger-pull do you consider proper?

Third, In my previous letter I stated I considered getting two sets of barrels. I do not now feel justified in spending the necessary amount of money to do this, and would like your recommendation as to boring and chambering for an all round purpose gun, with no expectation of ever getting second pair of barrels. This you will remember was for 16-gauge. E. R., San Antonio, Texas.

Answer (by Captain Askins). To my mind it is a toss up between the Fox and the Ithaca and I own both guns. I have used my sixteen-bore No. 4 Ithaca on quail all this season and would not ask for a better gun. It is bored left choke 50 per cent and right choke 55 per cent. I shoot the left barrel first. My gun was intended entirely for quail though I sometimes use it on snipe—not for ducks. For your use as an all-round gun I'd suggest a trifle closer shooting arm, say 55 per cent left and 65 per cent right—or reverse the thing if you pull trigger that way. I

have become so accustomed to the single trigger in the rear position that I don't like the front trigger for the first barrel. My gun weighs seven pounds and that is about what you want for all kinds of shooting.

The chambering would be 29/16 inches, which works equally well for $2\frac{3}{4}$ -inch in either the Ithaca or the Fox. The Fox people make that their standard chambering for a gun that is to use $2\frac{3}{4}$ -inch shells. So does the Parker Company I believe.

This answers except as to the choice of guns. Toss up a penny and take the side that turns up as your gun, knowing you couldn't get a better. I have had the Ithaca since 1911, the Fox since 1913, and both are going right along. The Fox single trigger has worked all that time. On the Ithaca I had an infallible single trigger that has given me trouble. Trigger pull for either gun is four pounds.

LIGHTNING POWDER

IN YOUR book, "The American Rifle," you state that Hercules Lightning Rifle Smokeless powder is hard on the rifle barrel when used in full charges.

Now, what I would like to know is, would lightning be harmful to the bore when used in the following charges with the 169 grain gas check cup bullet, 14.6 grs. 17.3 grs. 21.8 grs. 23 grs.? I don't intend to go above the 23 grain charge.

Now if you think Lightning would be harmful in the above charges, I would be very thankful if you will let me know, because I want to keep my Springfield barrel in the best of condition. I have plenty Dupont No. 80 I can use instead of Lightning, but I have a couple of cans of Lightning that I thought I would use up.

I have a can of Dupont No. 1 Rifle Smokeless powder which a friend of mine gave me. Could I use it for reduced loads in my Springfield? If I can, have you any idea of what charges would be best?

I know I ought to work up a charge of No. 80 and stick to it, but you know, Major, when a fellow gets the Gun Bug he always wants to be monkeying with firearms and powder anyway, if he don't get any place. E. S.

Answer (by Major Whelen). I have your letter of Oct. 4th. Lightning is an erosive powder when used in large charges compared with the size of the rifle. It is very erosive when used in full charges in the Springfield, or when used to obtain very high velocities in the various .25 caliber rifles. But its erosive qualities are almost entirely negligible when used in the charges you mention in the Springfield with gas check bullet. In fact I think that you can fire literally thousands of rounds of these charges without noticing any wear.

DuPont No. 1 can also be used very successfully in reduced loads in the Springfield. In fact, it was the powder that Horace Kephart first used when he did the original first successful development of reduced loads for .30 caliber rifles many years ago. He used 8 to 15 grains weight of DuPont No. 1 Smokeless with Ideal Bullet No. 308206—125 grains, in the .30-40 Winchester single shot rifle, and the lead shot very steadily into a $2\frac{1}{2}$ inch circle at 100 yards. I have also used this lead most successfully in times past in .30-40 and .30-30 rifles. I used it a lot in hunting many years ago. In fact there used to be a grizzly bear running around British Columbia with two of my 208206 bullets in his hide. Jumped him when I was loaded with the reduced load in my .30-30 rifle. I should say that about 12 to 15 grains weight of this powder should work finely in the .30-06 cartridge with any of the lead alloy bullets of 150 to 154 grains weight now being put out, or that slightly larger loads ought to do good work with the gas check bullets.



30 Cal. 100-grain.
For 25 and 50 yd.
shooting



30 Caliber 185-
grain plain base
for 100 and 200
yard shooting



30 Cal. 200-grain.
Gas Check, for
mid-range and
general purposes.



38 Cal. 160-grain
for all 38 Cal
revolvers



45 Cal. 245-grain
for 45 Revolvers
and 45 A. C. P.

Note the two seating cannellures, one for 30-40 Krag and the other for 30-1906 Spr'f'd. Very accurate in both rifles.

Note the seating guide on these revolver bullets, which locates them deep in cases, to insure better burning of smokeless powder.

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"I tried the bullets cast in it. At 100 yards the result was remarkable. The bullets landed exactly where the cross hairs were centered. It did not seem a matter of the ten-ring. It seemed a matter of one enlarged hole.

(Signed)

"Sam Squibb,

"Quincy, Mass."



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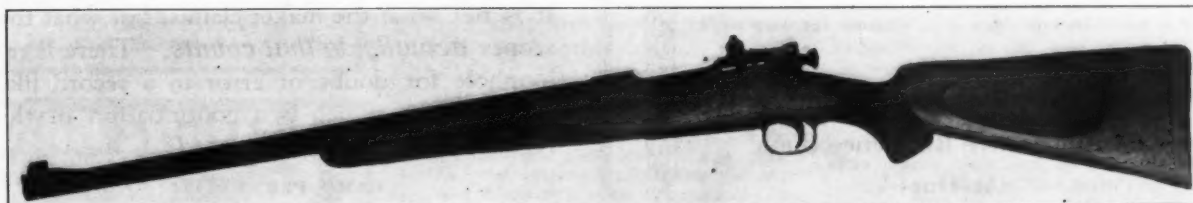
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30-1906	Bullets, soft point 180- or 220-grain, \$2.70 a hundred. Cases, primed, F. A. make, \$1.80 a hundred. Bullets, 150-grain full jacketed, target grade, 80c a hundred.
303 British	Bullets, soft point, 180- or 220-grain, \$2.70 a hundred Cases, primed, \$1.80 a hundred. Bullets, soft point, 174- or 215-grain, \$2.70 a hundred Bullets, 174-grain full jacketed, target grade, 80c a hundred.

7 mm.

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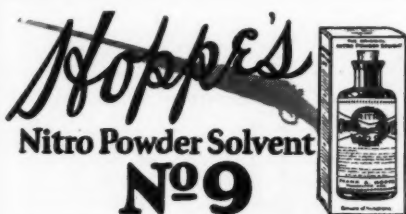
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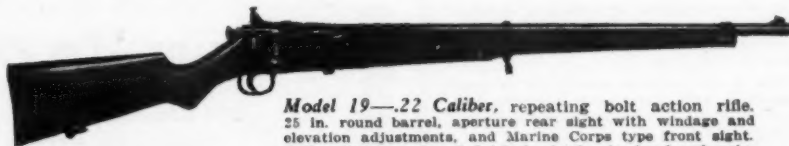
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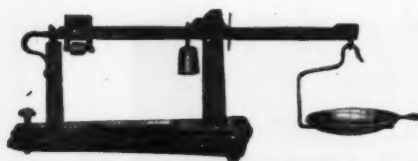


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FOR SALE OR TRADE—38 S. & W. Special 6-inch, perfect condition; 45 D. A. Colt 5 1/4-inch barrel perfect with holster; 45 Colt auto. like new with two extra magazines; 22 Remington automatic model 16, ivory bead front Lyman peep rear like new with sling strap and 500 cartridges; 22 L. R. Stevens 414 model aperture front Lyman peep rear, fitted with Winchester scope blocks, cannot be told from new with case; Winchester model 1912, 12-30 full, like new; Krag carbine perfect condition; two complete sets Hollifield Target Practice Rods for 30 Springfield, new; set Winchester No. 2 scope mounts without bases (to be riveted or welded on) Micrometer sight adjuster for Springfield new; Knobler scope mount for Springfield; 5-A Winchester Telescope No. 2 mounts extra Fecker lens making scope ten-power (can be easily removed) scope has aperture reticule and extra cross hair reticule, scope cannot be told from new; 8X Leitz (pre war) prism binoculars with straps and black sole leather carrying case, like new. **WANT**—High-grade 12-gauge trap and duck gun; high grade over and under 12 gauge; high grade, high power, spotting scope; Improved model Marine Corps shooting case; heavy barrel Springfield; Hensoldt Dyalit 2 1/2-power rifle telescope. R. M. Ward, 223 North 34th St., Philadelphia, Pa. 342

ANTIQUE AND MODERN FIREARMS (new and used) sold, exchanged, and bought. Large stock—reasonable prices! Stephen Van Rensselaer, Peterborough, N. H. M

FOR SALE—Liquidating firearms business; all prices below wholesale cost, each article absolutely new in factory grease and packing. Small deposit required with each order, balance C. O. D. with privilege of examination. Orders subject to prior sales. 1 6.5 mm. Mannlicher Schoenauer sporting rifle, \$40; 1 7mm. Krieghoff Mauser sporting rifle, \$27.50; 1 8 mm. Meffert Mauser sporting rifle, \$22.50; 2 22hi-power Savage rifles \$35 each; 2 30-30 model 94 Winchester carbines \$26 each; 1 30-06 model 95 Winchester carbine \$38; 2 12-gauge Winchester auto shotguns \$47 each; 1 20-gauge L. C. Smith double barrel auto. ejector field grade shotgun \$49; 5 22 Reising auto. pistols complete \$25 each; 1 38 Colt pocket model auto. pistol including 100 cartridges and pearl stocks, \$40; 1 45 Colt S. A. 5 1/4-inch barrel revolver, including 100 cartridges and stag stocks \$31; 1 22 Colt auto. pistol \$35; 300 imported high grade .25 and .32 auto. pistols \$5 and \$6 each; 75 Pre-War 9 mm. officer's model Mauser auto. pistols, 5 1/4-inch barrel complete with wooden holster stocks \$22.50 each; 1 7.65 mm. Bergman 50-shot auto. military rifle, air cooled, complete with full set extra parts and two magazines \$150. P. H. Spoyne, 2017 Vista del Mar Ave., Hollywood, Cal. 346

FOR SALE—Colt double action solid frame, rod ejector, fair condition, \$12. Remington single action, 2 1/2-inch barrel, 38 R. F. Sheath trigger, new, \$6. Rem. single action, 2 1/4-inch barrel, 38 R. F. Sheath trigger, rod ejector, new, \$7.50. Double barrel, 12-gauge pinfire, 100 loaded shells, fine condition, London made, \$15. Gold banded, mule ear lock, half barrel, by W. Girdner, Geneva, N. Y., good, but stock repaired, \$4.50. Platinum banded 2 ga. M. L. shotgun by Fowler & Son, London, maple stock, \$8. U. S. Johnson, Middletown, 1838, converted flint lock, good, \$5. Band tools, \$10.50, Perfection, \$15. Albertson, Lewes, Delaware. 337

FOR SALE—One Hercules, 12 gauge double barrel, hammer, shotgun, fair condition, cleaning tools, case, and about 30 rounds ammunition, \$20. One Colts 22 revolver, fairly accurate, \$5. Set 30-06 Ideal reloading tools and extra full length resizing die and decapper, \$5.00. Will sell all together for \$25.00. Express prepaid. James A. Browne, 627 No. Ave., Los Angeles, California. 383

FOR SALE OR TRADE—One pair mounted Mongolian ring-neck pheasants, \$10. Single bird, (male) \$5. Will trade for new Stevens off-hand pistol 6-inch barrel, good condition. Wilbur J. Mote, Laura, Ohio 343

FOR SALE—Winchester 95, 30-06, takedown, gun crank condition, Lyman No. 41 receiver, Marble folding rear, and King gold bead front sights, price \$45 with case. J. E. Greer, 1334 Commonwealth Ave., Allston, Mass. 344

WANTED—38 Smith & Wesson with target sights square butts; must be pre-war with target monogram on left side plate and in perfect condition, will pay cash. Box 1617, Pittsburgh, Pa. 381

WANTED—Ideal bullet mold No. 319162 or No. 319289. Alfred K. Friedrich, 101 N. Russell Ave., Ames, Iowa. 345

FOR SALE—Resizing dies, .45-70, .45 Colt, each \$1.10. 30 Krag neck resizing dies, \$85. 30 caliber shell chamfering reamer, \$1. Ideal powder measure No. 5, \$4.50. Ideal No. 3 D.A. .44-40 tool, \$3.75. Winchester .44 S. & W. Russian mold, \$1.35. 150 empty .38 S. & W. Special cases, \$1.80 empty. .45-80 Springfield cases, \$1.50. Collection of 70 ancient and modern cartridges, \$3.25. Krag belt holding 100 cartridges, \$1.50. Krag bayonet, \$1. Spare revolver barrels 7 1/4-in., cal. .36 Remington, bores fine, \$1.10. 1 doz. mainsprings for 44 Remington C. & B. revolvers, \$2.50. 2 doz. revolver nipples, \$1. Ideal bullet sizing tools, for hand use, .457 die, \$1.25. .45-70 Remington s. s. rifle, 26-inch heavy octagon barrel, bore perfect outside somewhat worn, \$15. Cal. 52 Jenks breech loading Navy percussion carbine, dated 1847 new condition, \$8. .50-70 Springfield cadet rifle, good, \$5. 50 Remington Navy pistol, bore perfect, outside good, extra beech block for rimfire cartridges, with 60 specially made, reloadable cartridges, \$18. B. K. Wingate, R-2, Reading, Pa. 359

FOR SALE—33 Colt Auto. pocket model, excellent condition with Heiser holster, \$28. 140 .25-25 Stevens cartridges, new \$9. 60 .44-90-470 Remington Creedmore solid head ctgs., \$3.60. 100 .44-60 Remington Creedmore berdan ctgs., \$3. 100 .38-90-217 W. C. F. ctgs., new, \$6. Used Winchester .38 L. tool and mold, \$1.75. Original Sharps .45 explosive bullet mold, \$2.25. New .40-82 Winchester mold and 1894 tool, \$4.50. New Ideal No. 6 .25-36 Marlin tool and mold \$2. Marlin patch mold for .40 370-grain bullet, \$1.25. John V. K. Wagar, Colorado College, Colorado Springs, Colorado. 384

FOR SALE—52 Winchester with blocks, A-5 scope and micrometer mounts, checkered steel butt plate with trap. Outfit in crank condition (no indoor range here). \$45 C. O. D. examination. Frankford Arsenal make base, with blocks, for A-5 scope to use on '03 Springfield, no fitting necessary, \$5. 38 S. & W. Special Mill and Police Pattern type sights, 6-inch, perfect except slight holster wear, \$22.50. O'Hare micrometer, mechanically perfect, \$3.50. Marble flexible peep sight for any caliber Remington auto-loading rifle, new, \$3. R. T. Markle, 610 So. Prairie Ave., Miles City, Mont. 378

TWO FINE RIFLES—Made-to-order, 250 Save B. A. Heavy 26-inch target barrel, Lyman No. 54, B. & M. Special No. 3 telescope base, fired 50 times, like new, cost \$90, take \$50. Pre-war genuine Oberndorf Mauser cal. 7 mm. with Dr. Gerard 6X telescope, set trigger, about 150 cartridges, cost \$135, take \$65. C. O. D. subject to examination (brand new, never fired). Henry F. Zinner, Middleburgh, Scho. Co., N. Y. 382

FOR SALE—Ithaca pre-war No. 4 ejector, 10 Damascus, 32 full Circaasian stock 14 1/4 x 2 1/4 x 1 1/2, 9 lbs. 7oz. Silver's pad, ivory sights, triple gold plate triggers, shot 75 times, bore perfect, good used condition otherwise, \$70. Colt new service 45, 7 1/2-inch like new, \$25. Colt 45 auto., fine holster, 300 ctgs., \$25. M. C. Bradbury, 340 Garson Ave., Rochester, N. Y. 380

FOR SALE—One pair 6-power 30 mm. Bausch & Lomb prism binoculars, twin focusing, sole leather case, like new, \$40. Pistol grip stock for 30 Springfield with bank, butt plate and swivels \$6.50 brand new. Both guaranteed as described. John A. Brickner, 250 Park Ave., S. W. Canton, Ohio. 371

FOR SALE—Mauser pistol, 9 mm., wooden holster-stock, good order, \$20. Luger pistol, 9 mm., 8-inch barrel, holster and stock, \$20. **WILL TRADE** for war relics. French, Russian and German bayonets, prices on application. R. K. Haerle, 1449 N. Pa. St., Indianapolis, Ind. 368

FOR SALE—Remington .32 caliber auto-loading rifle, brand new, never used. Gold bead front, King folding, Lyman tang peep sights, sling eyes, factory condition. Cost \$70.65, price \$55. No trades. Dr. H. C. Murray Block, Herkimer, N. Y. 373

WANTED—Sharps heavy rifles and repair parts, also 45 cal. 3 1/4-inch shells, ivory revolver grips. **TRADE**—380 Colt for 32-20 police with 4-inch barrel. W. H. Lenneville, Dickinson, N. D. 372

BELT WANTED, model 1914 mounted type for 18 rifle and 2 pistol clips. C. Shepard Lee, 1616 Canal St., Santa Barbara, Calif. 369

FOR SALE—Mod. 90 Winchester, 22 long rifle almost new, shot about 100 times, \$19. F. A. Owen, 126 Overhill Road, Upper Darby, Pa. 370

WANTED—Reloading tool for .38 S. & W. Special with adjustable chamber. Ivan Kirkman, Benkelman, Nebr. 377

FOR SALE—Pair Colt's Deringers in perfect condition, price \$25. Wm. E. Baxter, Topsfield, Mass. 349

FOR SALE—One 38 Colt's auto military mod. 6-inch barrel checked walnut stocks, Patridge sights, brand new condition, price \$27.50. A. L. Steitz, Warhouse Point, Conn.

FOR SALE—One model 1894 Winchester rifle, caliber .32-40. Good condition; shot about a hundred times. Price \$25. Gordon M. Atherton, 2132 Procter St., Port Arthur, Tex. 361

WANTED—Fairbanks Miners Assay Scales. Must be in perfect condition and cheap. Campbell Watson, care Philadelphia Trust Co., Broad and Chestnut St., Philadelphia, Penna. 348

FOR SALE—Colt's .22 caliber automatic pistol, little used, in perfect condition, complete with hand-made Heiser flap holster for \$22.50. C. O. D., with inspection if you wish. A. E. Leidy, 4023 University Way, Seattle, Wash. 356

FOR SALE OR TRADE—Greener, Royal Grade, double 12 bore ejector, gold mounted, straight grip, beautiful condition, in English leather box case. Price \$450. Might take high grade, straight grip 20 bore as part payment. Dr. Richard Suttan, Kansas City, Mo. 375

FOR SALE—Sharps hammer carbine, saddle ring, good condition except stock cracked, \$5; good Winchester S. X. 22 W. C. F. 90 loaded shells, \$6; small balance, case and weights, for powder, \$1.50. Transportation extra. Louis Evans, Route No. 2, Phoenix, Ariz. 354

FOR SALE OR TRADE—Star-gauged Krag 30-40 in excellent condition Very accurate. About 275 rounds of ammunition and cleaning accessories. Will sell for \$18 or exchange for 1919 N. R. A. Savage .22 in factory condition. Must be very accurate. Chas. W. Schoch, care Fairbanks, Morse & Co., Three Rivers, Mich. 350

FOR SALE OR TRADE—One 38 special S. & W., nickel finish, pearl handles, new, fired twelve times, 5-inch barrel, 530. One 1912 Model Winchester shotgun 25-inch barrel, 20 gauge full choke, fine condition, \$30. **WANT**—Springfield sporter, star-gauged. A. P. Lytle, Livingston, Montana. 355

FOR SALE—Springfield Model 1922, crank condition, stock worked down and refinished, checkered and barrel reblued. Fecker 8X scope, leather sling. The gun with Winchester Precision will hold the 10-ring as long as you can. Lyman 48 has been removed. \$65 money order takes it. Harry E. Boughton, 5151 St. Clair Ave., Cleveland, Ohio. 353

FOR SALE—The following arms in original boxes and packing, new and unused 1 Winchester Tournament Grade model 12, 12-gauge, 30-inch matted barrel, fitted with Winchester rubber recoil pad; regular list \$87, will sell for \$65. 1 Colt .45 Government auto. pistol, \$21. 1 Winchester scope case, new, \$4.50. 1 Winchester A5 scope, just overhauled and cleaned at factory, practically new except bluing slightly worn, without mounts, \$17.50. 1 Marbles jointed revolver rod, nicked brass, knurled handle, .38 caliber, \$50. **For Sale**—1 brand new 1923 National Match Springfield rifle, with pistol grip stock, military fore end and Lyman No. 23 sight attached at armory, \$40. 1 brand new Springfield sporter, just as received from armory, \$48. **ALSO**—One new Fecker 10X scope without mounts, \$26.50. One new Winchester model 52, new model stock, oil finished by Winchester, original box never opened, \$40. Harry D. Dodge, 1209 Gotham Nat'l Bldg., N. Y. C. 357

SPORTING STOCKS—Hand made to your specifications, finished and unfinished for Springfield, Krag and other bolt rifles. In straight grain black walnut \$18 and up, according to figure and finish. Also fancy figured walnut from the stump \$20 to \$35 according to state of finish. Also finest imported Circaasian walnut stocks finished and unfinished \$40 to \$60. Blanks inletted for barrel and action in any of the above woods from \$10 up. We have blanks in all the walnuts, also black myrtle and curly maple and many other woods. Remodeling a specialty. Stamps for photo. No catalogue. Butt plates in plain steel, checkered steel and imported trap plates from \$1 to \$5. Grip caps in steel, horn, rubber and "walrus ivory" 50c up. Sporting swivels any width with detachable barrel ring \$3. Ring with screw \$2. Hand forged checking tool, \$1.60 post paid. Crowning tool 75c. Krag carbine new sporting stock, new barrel, \$35. 250 caliber bolt Savage, new condition, \$40. Brand new 250 bolt Savage \$45. 300 caliber bolt Savage new condition, \$40. Many others for sale at bargain prices. **WANT** Short Mauser action. I have two heavy Mauser actions for sale or trade. R. D. Tait, Dunsmuir, California. 360

FOR SALE—Brand new De Luxe model 318 Gibbs Mauser, highly engraved with game scenes, highest quality Circaasian walnut stock, steel engraved butt plate with trap, steel engraved pistol grip cap with trap, ivory bead front sight, three leaf flush folding rear sight 500 yards, Lyman receiver sight, 26-inch barrel, sling swivels, stock made on American specifications, drop 1 1/4 by 2 1/4 length 14, cheek piece on stock. The highest quality of English workmanship by these celebrated riflemakers, hundred rounds of copper nose 250-grain bullet. Muzzle velocity 2,500 f. s., energy 34.66 f. lbs., a most accurate and reliable all round big game rifle in original condition as received from the makers. Sacrifice price \$300. Henry Brace, 11034 86th Ave., Edmonton, Alberta, Canada. 7

FOR SALE—Ballard 22 short, set trigger, 30-inch No. 3 barrel, telescope mounts, Schuetzen and prone stocks, sling, \$25. Ballard single trigger action with stock, remodeled to 22, \$12. Springfield pre-war issue, excellent, with telescope mounts, \$25. Winchester 22 musket reloaded, \$12. Winchester A-5 telescope, \$20. Bardou 33-power scope without case, \$13. Newton reloading tool for .30-06, \$4. Pope mold for Springfield, \$1. All are in very good condition and very accurate. W. H. Willard, 113 Peronia Way, Rutherford, N. J. 336

FOR SALE OR TRADE—A brand new, never shot, Winchester model 1912 repeating shotgun \$38. New S. & W. 10-inch target pistol \$20. New Ottaway 20X spotting scope, \$9. New Service Target .44 Spl. in factory grease, \$40. Winchester steel rod, 30 new, \$1. Will take in trade or buy for cash a first-class Ballard action and a 1924 Match Springfield. Fred N. Anderson, Suffern, N. Y. 351

STATEMENT OF THE OWNERSHIP, MANAGEMENT AND CIRCULATION OF THE AMERICAN RIFLEMAN

October 1, 1924

City of Washington.
District of Columbia.

Before me, a notary public in and for the State and county aforesaid, personally appeared Fred. H. Phillips, Jr., who, having been duly sworn according to law, deposes and says that he is the Editor of The American Rifleman (published semi-monthly) and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, National Rifle Association of America, Washington, D. C. Editor: Brig. Gen. Fred H. Phillips, Jr., 1108 Woodward Bldg., Washington, D. C. Managing Editor: None. Business Managers: Executive Committee, National Rifle Association of America.
2. That the owners (no stock issued) are: Lieut. Col. Smith W. Brookhart, Washington, D. C. President; Lieut. Col. Frank Maloney, Knoxville, Tenn. First Vice-President; Col. Fred M. Waterbury, New York City. Second Vice-President; Major A. B. Critchfield, Shreve, Ohio, Third Vice-President.
3. That the known bondholders, mortgagees, and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are: None.
4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.
5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is: (Required of daily publications only).

[Signed] F. H. Phillips, Jr., Editor.

Sworn to and subscribed before me this first day of October, 1924.

[Signed] Ethel R. Guise.

(My commission expires Nov. 17, 1927.)



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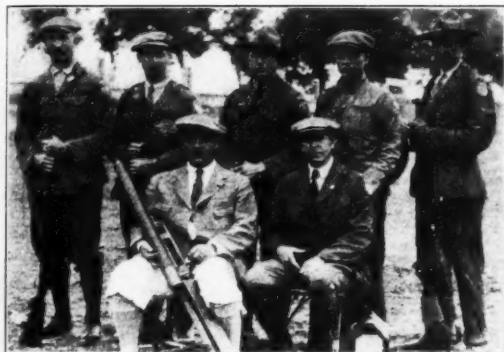
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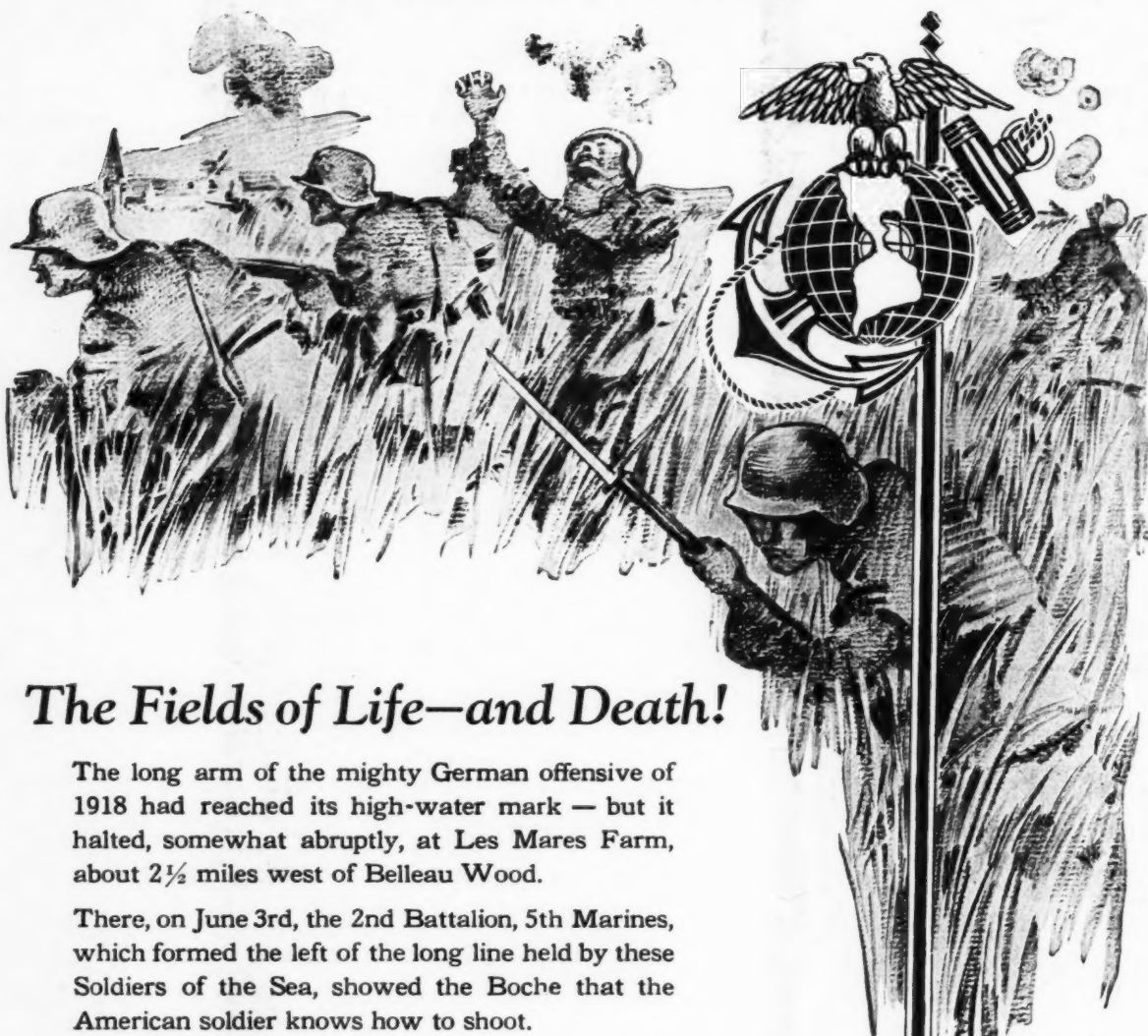
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